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UNEMPLOYMENT AND THE IMPACT OF VOCATIONAL TRAINING: THE GREEK LABOUR MARKET DURING THE PERIOD 1988-2000

STAVROS RODOKANAKIS

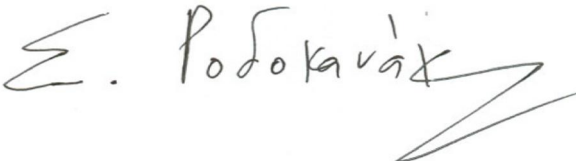
A thesis submitted for the degree of Doctor of Philosophy

University of Bath
Department of Social and Policy Sciences
November 2015

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A handwritten signature in black ink, reading 'Σ. Ροδokaνakis', enclosed within a rectangular box. The signature is stylized, with a large initial 'Σ' and a long, sweeping flourish at the end.

ABSTRACT

The basic aim of this thesis is to study the impact that educational level and vocational training programmes (mainly funded by the European Community Support Frameworks) had on the labour market of peripheral EU countries, using Greece as a case study. In particular, the thesis focuses on the Greek regions of Attica and Central Macedonia, as well as Greece as a whole, during the period 1988-2000. It investigates econometrically whether the training courses in these two regions were compatible with the skill needs and thus, helped the trainees to increase their chances of finding a job, as well as to what extent there were skill mismatches between education-training programmes and the labour market. Attica and Central Macedonia were chosen because they are the largest regions in Greece in terms of population, and the two biggest urban centres in the country (Athens and Thessaloniki) are situated in the regions under study. So, in effect, the thesis investigates half of the Greek population and compares it econometrically with the rest of Greece. This investigation was undertaken using Labour Force Survey (LFS) micro-level data that became available in Greece in 2005. As all training actions in the country are co-financed by EU funds, the thesis also probes the outcomes of these funds during the period of the Community Support Framework - CSF-1 (1989-93) and CSF-2 (1994-99) in the domain of training.

My analysis at the micro-level indicates that this training “revolution” was not accompanied by any real improvement in matching supply with demand or increasing people’s chances of finding a job. The study moves beyond the micro-level and embeds the empirical findings within the institutional/organizational environment of Greek vocational training (meso-level) and the broader political economy of Greece and its position in the EU political economy (macro-level). This is so as to provide a comprehensive explanation of what empirically is identified as the minimal impact of these policies. That is, the thesis goes further than the often narrow micro-economic explanations of the impact of training upon labour markets in that it explores the wider politico-economic context of these policies and assesses its impact on their effectiveness. Consequently, the findings are of relevance beyond the Greek case as they are also useful for comparative research pertaining to European regions or countries. The results of the thesis challenge the usefulness of the active labour market policies (ALMPs) alone. Training mechanisms, concrete political economy

and inadequate public administration were the main obstacles to the matching process. This does not mean that training and ALMPs are not needed in Greece, but they can only function effectively in the presence of a suitable institutional framework, which has yet to become a reality.

STATEMENT

Part of the econometric analysis of this thesis has been published in peer-reviewed academic journals, but it was not based on a pooled format as is the case in this thesis. The econometric work presented in this thesis is original in the sense that I have generated one model with all the main effects, including all variables of interest, plus all control variables and neither this type of ‘pooled’ quantitative analysis nor the interaction effect analysis have been published yet in academic journals. However, the results of the logit model with separate regressions for each year (including some, but not all the variables examined in the thesis) that are presented in chapter 5 have been published as follows. The results for Attica referring to 1988 have been published in Rodokanakis S. (2010a), The dynamics of regional labour markets and training programmes: Greek evidence, *European Spatial Research and Policy*, vol. 17 (1), pp. 93-115. The results for Central Macedonia for 1988 have been published in Rodokanakis S. (2010b), Comparing the probability of unemployment in Northern Greece vis-à-vis the entire country, *Journal of Economic Asymmetries*, vol. 7 (1), pp. 137-74. The results for the whole of Greece pertaining to 1988 have been published in the above mentioned paper in the *Journal of Economic Asymmetries*, as well as in Rodokanakis S. (2009), Comparing the probability of unemployment in Southern Greece vis-à-vis the entire country, *Bulletin of Geography – Socio-economic Series*, No 12, pp. 17-43. The results of the logit model for Central Macedonia referring to 1994 and 2000 are published in Rodokanakis S. and Vlachos V. (2012), Measuring the unemployment risk in Northern Greece from the LFS micro-data during the period 1994-2006, *Review of Economic Analysis*, vol. 4 (2), pp. 224-46, whereas the outcomes covering Attica and Central Macedonia for 1994 and 2000 have been published in Rodokanakis S. and Vlachos V. (2013a), Unemployment in the Greek regions of Attica and Central Macedonia: Comparative econometric analysis between the 2nd and the 3rd CSFs, *International Journal of Economics and Business Research*, vol. 6 (2), pp. 140-57. The results of the logit model for the entire country for 1988, 1994 and 2000 have been published in Rodokanakis S. and Vlachos V. (2013c), Investigating the unemployment risk in pre-crisis Greece using LFS micro-data, *International Employment Relations Review*, vol. 19 (1), pp. 47-67. In all my publications I am the sole or the leading author.

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I would like to thank my family for supporting me and my supervisor for our excellent collaboration from the beginning until the submission of the PhD thesis. Also, I would like to dedicate the PhD thesis to my parents and especially to my mother who recently passed away. In addition, I would like to dedicate the PhD thesis to my beloved children Sofia and Stefanos. Finally, I would like to thank Max for his very useful comments.

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LIST OF ABBREVIATIONS

(If the original abbreviated form is in Greek, and there is no official abbreviated form in Latin, the Greek letters are turned into Latin in order to keep their aural correspondence)

ADEDY:	Civil Servants' Supreme Administrative Council
AEI:	Higher education institution (university)
ALMPs:	Active labour market policies
A.S.PE.T.E:	School of Pedagogical and Technological Education
CEC:	Commission of the European Communities
CEDEFOP:	European Centre for the Development of Vocational Training
CEECs:	Central and Eastern European Countries
CET:	Continuing education and training
CMEs:	Co-ordinated market economies
CPE:	Comparative political economy
CSF:	Community Support Framework
CVT:	Continuing vocational training
EAGGF:	European Agricultural Guidance and Guarantee Fund
EC:	European Community
ECB:	European Central Bank
ECHPS:	European Community Household Panel Survey
ECVET:	European Credit System for Vocational Education and Training
EES:	European Employment Strategy
EIE:	National Institute of Labour
E.KE.PIS.:	National Accreditation Centre (of CVT Structures and Accompanying Support Services)
ELFS:	European Labour Force Survey
EL.KE.PA.:	Hellenic Centre of Productivity
EL.STAT.:	Hellenic Statistical Authority
EOMMEX:	Hellenic Organization of SMEs and Handicraft
EPA:	National Employment Observatory
EQF:	European Qualifications Framework
ERDF:	European Regional Development Fund
ESDA:	National Action Plan for Employment
ESEKA:	National Council of Vocational Training and Employment
ESF:	European Social Fund
ESYE:	National Statistical Service of Greece
EU:	European Union
FIFG:	Financial Instrument for Fisheries Guidance
GDP:	Gross domestic product
GEP:	Greek employment policy
GGLE:	Secretary General of Popular Training
GNP:	Gross national product
GOF:	Goodness-of-fit-tests
HL:	Hosmer and Lemeshow test
IEK:	Institute of Vocational Training
IIEK:	Private IEK
IMF:	International Monetary Fund
IN.E./GSEE:	Institute of Labour/General Confederation of Workers of Greece

IOBE:	Institute of Economic and Industrial Research
ISCED:	International Standard Classification of Education
KATEE:	Ex-TEI
KEK:	Centre of Vocational Training
KEPE:	Centre of Planning and Economic Research
KOE:	Economic Research Centre
KPA:	Centres of Employment Promotion
LFS:	Labour Force Survey
LMEs:	Liberal market economies
LTU:	Long-term unemployment
MMEs:	Mixed market economies
MOP:	Multi-fund operational programme
NAP:	National Action Plan
NEEKA:	Prefectural Committee of Vocational Training and Employment
NQFs:	National Qualifications Frameworks
NRP:	National Reform Programme
NUTS:	Nomenclature of Territorial Units for Statistics
OAED:	Manpower Employment Organisation
OECD:	Organisation for Economic Co-operation and Development
OEE:	Economic Chamber of Greece
OEEK:	Organisation of Vocational Education and Training
OKE:	Economic and Social Committee (Greek)
OMC:	Open Method of Co-ordination
OP:	Operational programme
PEEKA:	Regional Committee of Vocational Training and Employment
PPP:	Purchasing power parity
PPS:	Purchasing power standards
RDAs:	Regional Development Agencies
RDP:	Regional Development Plan
RTD:	Research and technological development
SEA:	Single European Act
SELETE:	School of Teachers of Vocational & Technical Education
SEV:	Association of Greek Industries
SILC:	Survey on Income and Living Conditions
SMEs:	Small and medium enterprises
SVVE:	Association of Industries of Northern Greece
TEE:	Technical Chamber of Greece
TEI:	Technological Educational Institution
TSE:	Tripartite Consulting Committee
TVE:	Technical & vocational education
TVL:	Technical Vocational Lyceum
TVS:	Technical Vocational School
UI:	Unemployment insurance
UN:	United Nations
URDP:	Urban and regional development policy
VET:	Vocational education and training
VIF:	Variance inflation factor
VoC:	Varieties of capitalism

CHAPTER 1: INTRODUCTION

1.1 Introduction

Given the current tendency towards continuous globalisation of market economies and the rapidly changing scientific and technological knowledge, investment in human capital has become as important as that in capital for competitiveness and economic development. Consequently, evaluation of the impacts from this type of investment is crucial for future labour market planning. In Europe, investment in human capital and especially the salience of vocational training has grown substantially since the early 1990s, in terms of both the funds allocated and the number of participants on training programmes. This growth represented a ‘policy paradigm’ shift from the so-called ‘passive’ to active labour market policies (ALMPs). It placed strong emphasis on skills and life-long learning to maintain employability¹ in increasingly more ‘flexible’ labour markets under conditions of global competition. Indeed, from the early 1990s onwards, the EU’s strategic policy documents (e.g. the White Paper on Education and Training [CEC, 1996c], and the Lisbon agenda) highlighted the priority of training and skills in employment policy, promoting it as a universal principle applicable to all EU economies and labour markets.

However, the evidence regarding the success of such policies is inconclusive, at least for the economies of Southern European member states, thus casting doubt on their impact on the labour market prospects of those participating on training courses. Part of the explanation is the lack (and difficulty, due to data restrictions) of systematic evaluation of these policies that connects the micro-level practices of individuals with the macro-level characteristics of the labour markets in their respective societies. There is much evidence that Southern European member states’ labour markets and production regimes are considerably different to those of the core EU member states. Against this background, with its focus on Greece, this thesis serves as a case study on the effectiveness of EU training policy within the context of

¹ It should be emphasized here that employability is not the same as gaining a job, but rather, implies something about the capacity of a person (skills, understandings and personal attributes) to function in a job and be able to move between jobs, thus remaining employable throughout life.

a Southern European economy at the periphery of the EU.

Indeed, in the case of Greece the role of the EU was pivotal in changing the extent and nature of practice of training in the country. This is evident from the amounts spent on training activities from the end of the 1980s onwards through the structural funds and the European Social Fund (ESF) in particular, the numerous training agencies which have been established in order to be involved in the training process and the increasing numbers of trainees on the various training courses. However, it is questionable whether this training “revolution” was accompanied by any real improvement in matching supply with demand or increasing people’s chances of finding a job. It is not asserted categorically here that the mismatch between supply and demand for labour was due to training mismatch alone, but it is contended that this should be seriously considered as one of the reasons for the unemployment problem in Greece, at least for the period prior to the current crisis.

Here, a clear distinction should be made regarding, on the one hand, education, investment in which concerns the individual being instructed in generic and/or specific academic subject matter. Whilst on the other hand, in the case of training, this definitively means:

- acquisition of a particular skill;
- improvement of specialist knowledge that any productive individual has (Papakonstantinou, 1998).

Simply skilling and re-skilling might not lead to better opportunities in the labour markets of semi-peripheral countries where the economy does not create corresponding jobs. Reskilling has been what has been happening in Greece, i.e. the same training courses very often run again and again. By contrast, Northern European economies have generally focused on up-skilling aimed at the improvement of skills so as fill high-skilled job vacancies and to this end, new high-skilled training programmes have been run. Training activities in Greece have been jointly financed by the EU, the government and private providers, but despite the EU having been the biggest contributor, it has not at any time evaluated the impact of training on employment or taken steps to ensure that the types of training courses funded in that country were compatible with the needs of its economy.

Consequently, behavioural models (micro-level), institutions and investment in relation to training (meso-level) in Greece have yet to be considered along with the

macro-context of its political economy, thereby allowing for robust evaluation of its effectiveness. The EU, through the European Employment Strategy (EES), expected that national systems would be reformed into supply-side oriented systems (Seferiades, 2006), but was never explicit about the manner in which this should be achieved. The conditions for making the employment and growth model functional as happens in Northern European countries, have been absent in the Greek context.

The lack of a general institutional framework in relation to continuing vocational training (CVT) in Greece resulted in, among other things, the weakness of the planning and application of a training policy, in connection with the development of specific geographical regions and branches of the economy (Iliades, 1995). The education-training policy could not, by itself, constitute the solution to unemployment, because unemployment was not exclusively due to the lack of educational qualifications and skills, but rather, caused by the absence of a particular model of economic development (Chletsos, 1998). A brief overview of the issues that failed to be addressed owing to the absence of such a model in the Greek context is provided next as well as there being comments on the administrative failures at both national and EU levels.

There were problems which created obstacles and made it difficult for the CVT programmes to reach its recipients, even when it was specially designed for them. This was the result not only of a lack of preparatory and reinforcing efforts, but also the lack of adequate and effective information networks (Dedoussopoulos, 1996). Furthermore, the system of certification of professional qualifications or rights the trainees acquired by following a particular programme had not been made law, thereby undermining the notion of professional status (Iliades, 1995). Moreover, the programmes that were funded were selected using criteria that did not cover the evaluation of their effects on production and employment. Instead, they referred to generic specifications relating to the management of the programmes and further, they did not specify the content of the training. Given the lack of any criteria that were measurable for aggregated as well as comparative analysis at the intra and international levels, the real needs regarding CVT were uncertain in relation to the content of programmes and skills required (Linardos-Rylmon, 1998). Also, Brussels did not (and still does not) evaluate the impact of vocational training programmes funded by the EU on the Greek labour market, choosing only to monitor that there were robust financial controls on the programmes.

The machinery for tracing employment opportunities in Greece was very basic. Specifically, whilst comprehensive information of this kind is found in the other countries of the EU in employment offices, in Greece these were, on the whole, unavailable, and those that were provided discontinuous information for just a few skills. This failure has been attributed to the Manpower Employment Organisation (OAED) abnegating its responsibility of taking on the function of matching supply and demand for labour (Dedoussopoulos, 1996). One further essential weakness of the institutional framework of vocational education and training (VET – which is a broader term than CVT) in Greece was the absence of the systematic involvement of social partners in determining needs in education and training (Linardos-Rylmon, 1998). In sum, it would appear that substantial political, economic and administrative failings contributed to the inability of the VET in Greece to deliver employment on a large scale during the period 1988-2000. However, this only provides a general background to what was happening at the time and hence, in this research the aim is to build a more comprehensive understanding of the nature of and interplay between the various factors that led to EU funded training programmes failing to result in large scale job creation.

1.2 The rationale underpinning the thesis

Previous labour market studies on Greece for the period under investigation were based on qualitative research and Labour Force Survey (LFS) aggregated data. The importance of the current research, and the empirical contribution of this thesis, is that the investigation of the impact of training on the Greek labour market - at both the national and Nomenclature of Territorial Units for Statistics (NUTS) (second or regional level) levels - is based on LFS micro-data. Access to the individual anonymised records of the Greek LFS was not available to researchers until the summer of 2005, due to the Data Protection Act and when the econometric analysis is based on LFS aggregated data the results are not reliable.

This research is not only based on the econometric analysis of the LFS micro-data, namely, at the level of individuals (micro-level), but also focuses on what happened at the level of vocational training institutions and employment offices (meso-level), as well as at the level of the wider political and economic dynamics in

Greece and the EU (macro-level of analysis). To this end, a comprehensive analysis is undertaken in an attempt to link all three levels (micro, meso, macro). To the best of this researcher's knowledge, such an approach on training evaluation has not been undertaken for Greece, to date, or for that matter, any other EU member state.

At its core, the thesis comprises an econometric study of the impact that the educational level and training programmes (apprenticeship, intra-firm training, CVT, popular training) had on the labour market in the Greek NUTS-2 regions of Central Macedonia and Attica, as well as in the rest of Greece, during the implementation of two Community Support Frameworks (CSF), namely, CSF-1 (1989-93) and CSF-2 (1994-99). The term "popular training" (*laiki epimorphosi* in Greek) refers to training courses intended mainly for elderly people independent of their educational level, the curricula for which mainly cover courses of general knowledge; however, there are some people who do rely on this type of training in order to get a job. By contrast, the current investigation is focused on whether and if so, the degree to which the training courses in Central Macedonia, Attica and the rest of Greece were compatible with the skill needs demanded by employers. Moreover, whether the trainees were able to increase their chances of finding a job, as well as the extent to which there were skill mismatches between education-training programmes and the labour market are probed. As mentioned above, training actions in Greece were (and still are) jointly financed by EU funds, the government and private providers, but the vast majority was funded by the foremost.

In particular, I test the human capital theory (Becker, 1964 and 1975; Ben-Porath, 1967; Mincer 1974), which underpins many of the important developments in modern economics (Berman *et al.*, 1994; Machin and van Reenen, 1998; Le *et al.*, 2003; Jones and Chiripanhura, 2010), especially whether the more educated and the more trained a person is, the higher the probability of him or her finding a job, as well as the matching theory (van Smoorenburg and van der Velden, 2000). The matching theory is also considered, because in contrast to the human capital view under this perspective too much education leads to a lack of training and consequently, an over-educated often unemployable workforce, which appears to be the case in Greece and other Southern European countries. I also research the differences between the two regions under study and the rest of the country in terms of their training, education and several socio-economic characteristics so as to be able to draw conclusions and make policy recommendations regarding future vocational training in Greece.

1.3 The research questions

Prior to discussing the research questions, it is necessary to offer a clarification of terminology. The term micro-level refers to behavioural models, behaviours and characteristics of individuals, with special emphasis on education. These are classical micro-economic models (incentive structures, disincentives, models examining the individual and his/her characteristics). Meso-level analysis essentially pertains to institutions and policies. Specifically, in this work the meso-level refers to the role of regional and national institutions and investment on training, how training is organised, whether and if so how, the institutional framework at this level leads to productive choices of individuals at the micro-level. The macro-level aspect of the study covers both the national and supra-national dimensions. This includes analysis on how a national political economy functions, as well as how it is affected by supranational policy frameworks and agendas, such as the EES. The Greek national institutions and policies function at both the meso and macro levels, specifically at the meso-level national institutions and policies impacted downwards to the regional level, which in turn impacted on the micro outcomes. Moreover, at the macro-level the Greek policy makers were tasked with interpreting how EU policies would be rolled out in the Greek context. Clearly, all these levels are inter-related and investigation into their impact will allow for a comprehensive understanding of the labour market dynamics during the last decade of the last millennium.

Against this background the key research questions of the thesis are as follows:

- a) What was the impact of EU funded vocational training on the Greek labour market and individual job seekers who undertook this training from 1988 to 2000?
- b) How can this impact be explained?

To address these questions my research is organized along three inter-related levels of analysis (micro, meso and macro) that correspond to the following research sub-questions:

- 1) What was the impact of the training programmes at the participant level? (micro-level);
- 2) Was the training system, i.e. the institutions, in Greece, both regionally and nationally, effective in helping people to find jobs and if not, why? (meso-level); and

3) To what extent did the ALMPs in Greece, in particular the policies of vocational training, integrate EU-funded training in their skills strategy? To what extent was any (in)effectiveness of ALMPs related to the characteristics of the Greek political economy? (macro-level).

1.4 Justifying the choice of Greece and the time period for my study

One of the key issues I identify is that the attempt to provide universal applicability of abstract and de-contextualised micro-level theories of skills mismatch, such as human capital theory, is problematic in some contexts. Indeed, Greece is an interesting testing case, precisely because high unemployment has traditionally coincided with phenomena like over-education and high demand for low skill jobs by employers. In addition, administration of vocational training in Greece has been highly problematic. All these factors lead to an initial hypothesis that the training programmes have not had any impact on the Greek labour market. The application of ALMPs alone did not ensure that people would find a job more easily than before. In fact, it would appear that training programme participation was mainly engaged in as the benefits accruing were higher than those provided for being unemployed. As such, the Greek government was able to give the public the impression that they were helping the unemployed back into work through substitution of unemployment benefit with training grants. Greece entered the euro under these conditions and dynamics and their non-resolution contributed, to an extent, to the country's current economic and social bottlenecks.

The reference time period for my study will be 1988-2000 (with some data and analyses often covering up to the mid 2000s). The reasons are as follows:

(1) The year 1988 was the last year before the start of CSF-1 and in my thesis I explore the time period between the first two CSFs.

(2) From the early 1990s, there was a change in the philosophy of labour market policies (e.g. of the OAED) with emphasis being placed on the increased role of ALMPs in the economy, and the availability of more resources for training. This has to do with two shifts: one external (a 'policy paradigm shift' in EU towards

employability and ALMPs), and one internal (a shift in the economy from mainly agriculture and weak industry to predominantly services during the 1980s and 1990s).

(3) The 1990s was the decade in which Greece entered the procedure of accession to the new common currency, thus involving its participation in a large array of institutional developments towards the ‘Europeanization’ of employment policies (see EES, Lisbon Strategy, and Open Method of Co-ordination (OMC)).

1.5 Structure of the thesis

Chapter 2 sets the background to my study and my research questions by discussing the role of EU structural funds and the increasing role of training in Europe. Then, the situation of CVT in EU member states and the role of training policies under EU employment law during the time period of the study are examined, namely how the training system is supposed to operate in a capitalist labour market.

Chapter 3 is the methodology chapter. This chapter explains aspects of my three-level analytical framework (micro-meso-macro) and their actions/interactions, the limitations of the data, the methodological problems regarding the data, as well as the quantitative methodology I will use in the chapter 5. Furthermore, in chapter 3, some issues relating to the LFS questionnaire are raised and finally, I explain the characteristics and limitations of the dataset, as well as the potential and limitations of the quantitative technique used.

The analysis will follow three steps. First, chapters 4 and 5 will focus on the micro-level of analysis. In chapter 4, the relevant literature on the meaning and importance of skills shortages, the training mismatch, as well as the labour market theories in relation to education and training is reviewed. Also, the role of education and training in addressing unemployment, as well as the problem of over-education and why it is important to this research are covered. Furthermore, in chapter 4 issues regarding the impact of training programmes on the employment prospects of individuals in the EU and the rest of the OECD according to a series of prior international studies of other researchers is assessed.

Chapter 5 comprises the original econometric work of the thesis (it answers the first main research question, namely “What was the impact of EU funded vocational training on the Greek labour market and individual job seekers who

undertook this training from 1988 to 2000?”, and also the first research sub-question, namely “What was the impact of the training programmes at the participant level?”), which involves a logistic regression for the two NUTS-2 regions and the rest of Greece based on micro-data of the Greek LFS for the years 1992, 1994 and 2000. In addition, interaction effects analysis and multi-collinearity statistics for the whole of Greece in 1992, 1994 and 2000 are provided. The basic aim of this analysis is to test the impact that training programmes (apprenticeship, intra-firm training, CVT and popular training) and educational level had on people’s job prospects in all three areas under examination during the implementation of the CSFs 1 and 2, using demographic characteristics including age, gender, marital status, area of residence and immigration as the independent variables.

Chapters 6, 7 and 8 address the second main research question, namely, “How can this impact be explained?”. Chapters 6 and 7, cover the second step and the meso-level of analysis and answer the second sub-question, namely, “Was the training system, i.e. the institutions, in Greece, both regionally and nationally, effective in helping people to find jobs and if not, why?”. Chapter 6 begins with an overview of the Greek system of education and training. Following this, how the EU funded vocational training interacted with the particular context of Greece’s labour market (meso-level analysis) is probed, as well as a critique of the matching mechanisms in that country being provided. Moreover, there is analysis of the situation in the field of vocational training in Greece and also consideration of the impact of EU financing on training during the first, the second and the third CSFs. Then, I provide a critique of skill needs and shortages by drawing on the relevant literature.

Chapter 7 analyses the labour markets in Central Macedonia and Attica, by seeking an explanation for the development of high unemployment, in particular, the alarming levels of long term unemployment. Moreover, the relation between unemployment and educational level in Central Macedonia and Attica is investigated.

Chapter 8 covers the third step and contains the macro-level analysis. This chapter answers the third sub-question, namely, “To what extent did the ALMPs in Greece, in particular the policies of vocational training, integrate EU-funded training in their skills strategy? To what extent was any (in)effectiveness of ALMPs related to the characteristics of the Greek political economy?”. Subsequently, the literature on the comparative political economy (CPE) or Varieties of Capitalism (VoC) is considered. I discuss some macro-economic data for Greece, as well as the role of

ALMPs and the problem of unemployment at both the national and EU levels. In addition, the levels of employment policy expenditure in Greece are compared with those of the rest of the EU, which is followed by explanation of the reasons for the low effectiveness of ALMPs in Greece in terms of their minimal impact on unemployment. I also discuss how the Greek training system is embedded in the Southern European VoC and link my research to the present economic situation in Greece.

Chapter 9 is the last chapter of the research and concludes on the policy implications in the field of training in Greece, and more specifically the impact of the EU intervention and the effect of training on unemployment in Central Macedonia, Attica and the whole of Greece, and a discussion follows from micro to meso and macro-level of analysis.

CHAPTER 2: EU STRUCTURAL FUNDS AND VOCATIONAL TRAINING IN EUROPEAN POLITICAL ECONOMIES: THE GREEK CASE IN CONTEXT

2.1 Introduction

This chapter provides the background to the EU institutional framework and its employment policies, thereby shedding light on how the EU Commission approaches vocational training. It examines the EU structural funds and the EU involvement in the VET systems of member states during the period under investigation. It also focuses on the different types of state organization of vocational training among EU countries and their outcomes as well as the EU funding in the field of training. Its key aim is to provide the background to the policy consensus that was dominant prior to and during the first years of the Lisbon strategy, thereby offering a framework for the research questions of my study. It is demonstrated that during the period under investigation this policy consensus placed emphasis upon the supply side of the labour market by the EU and member states aimed at improving job matching within a (market driven) European economy where private investment would generate demand for high skills in national labour markets. As I will demonstrate in this chapter, this was not a straightforward process and as emphasized, the EU policies and associated funding were to be mediated by the complex interactions between EU priorities regarding employment strategy, EU funding and its governance as well as the variety of national institutional vocational structures and their funding and governance. Finally, the role of the chapter is to frame the empirical part of the thesis where Greece's institutional and labour market characteristics and the impact of EU funded training upon the employability of the trained person will be empirically investigated.

During the focal time period of the study (late 1980s to 2000), policy discussions and strategies adopted in the EU with regard to unemployment and social exclusion, employment safeguards, competitiveness and the prospects of the welfare state, focused heavily on the supply-side of the economy, emphasizing employability through training and skills creation. Decision-makers in the EU generally considered that it should produce higher value-added and more 'knowledge intensive' products in

order to combat effectively the challenges in terms of competition that lower-wage economies in the rest of the world presented. Investment in the training and abilities of the workforce was going to be needed for this (Heyes, 2007). Under the same pretext, national employment and welfare policies were seen as requiring reform, which authors like Jessop (2002:248) maintained represented a movement away from ‘Keynesian national welfare states’ (and the related interest in improving social rights) towards ‘Schumpeterian workfare post-national regimes’, which were mainly concentrated on creating conditions to favour entrepreneurs. Such a transformation involved policy measures which combined the enhancement of skills, knowledge and the capacity for innovation, decreases in social spending, stricter passive labour market policies and the creation of greater flexibility in labour markets (Heyes, 2007).

The main idea of this chapter is that the EU has engaged in national employment policies and VET systems in two interrelated ways. Through the EES it set the direction of employment policy, emphasizing supply-side measures and employability, thus, relying on retraining and reskilling. Through the structural funds it provided financial incentives and support to member states to pursue this vision, but this funding involved, implicitly, encouragement to modernize the member state institutions involved in vocational training. The following section will provide a history of the EC structural funds over a period of thirty years.

2.2 The EC structural funds from the 1970s to the early 2000s

Whilst the EC since its creation by the Treaty of Rome (1957) has recognized the need for national regional policies, no such policy was rolled out until the mid-1970s when the European Regional Development Fund (ERDF) was created. In 1986, the Single European Act (SEA) set new objectives for the European Community, with the aims being the realization of an internal market by the end of 1992 as well as the strengthening of economic and social cohesion. The great emphasis that was placed on the importance of the reduction of economic and social disparities (e.g. in GDP per capita, productivity and employment rate, RTD and manpower skills) in the Community was justified both by their level, in absolute terms, and by their unsatisfactory evolution over time (Eurostat, various years). Policy needed to take in

account both that some declining areas were becoming marginalised, whilst others were somewhat underdeveloped.

The three main funds of the EC were originally the ESF (1958), the European Agriculture Guidance and Guarantee Fund (EAGGF) with separate guarantee and guidance sections, and the European Regional Development Fund (ERDF-1975). ESF, ERDF and the EAGGF-Guidance (1964) are commonly grouped together as the structural funds and their target has been the economic and social cohesion of the member states. The FIG (Financial Instrument for Fisheries Guidance), which assists in the restructuring of the fisheries sector, was added to the three traditional structural funds (ESF, ERDF, EAGGF-Guidance) in 1993 (Shackleton, 1993), and during the period under study these funds were subjected to various reforms (in 1988, 1993 and 1999).

Since 1st January 1989, the original three EC structural funds have been substantially reformed. The total amount of spending for the CSF-1 (1989-93 period) was equal to 60 billion ecus (1989 prices) and their budget was doubled in real terms between 1987 and 1993. The proportion of the overall budget going to lagging regions (with a GDP per head less than 75% of the Community average) had reached approximately 65% of the overall structural funds budget in 1993 (CEC, 1990a). The key principles of the reform were:

- cohesion (targeting and concerted action);
- additionality (evidence of added value);
- partnership (collaboration with regional and local actors);
- programming;
- subsidiarity (complementarity of the responsibilities between the various social agencies, such that the responsibility was undertaken by the smallest possible administrative or geographical unit) - (CEC, 1990a).

In more detail, the main innovations of the reform included the following.

1. A concentration of the actions of the structural funds on a limited number of clearly defined objectives, as *Table 2-1* shows:

Table 2.1 The EC structural funds 1989-1993

		Eligibility	% of funds
Objective 1	Lagging regions	all funds	63
Objective 2	Declining regions	ERDF, ESF	12
Objective 3	Long-term unemployment and	ESF	
Objective 4	Youth unemployment	ESF	12
Objective 5a	Agricultural adjustment	EAGGF	6
Objective 5b	Rural development	all funds	5
Other			2

Source: CEC, 1990a.

2. Radical changes in procedures including: the replacement of assistance on a project-by-project basis by integrated multi-annual programming to ensure better coherence and effectiveness of the actions; greater co-ordination (synergy) between the three funds; and a significant strengthening of the partnership arrangements involving the Commission, the member state and the regional or local authorities concerned, in a more elaborate planning system of preparation (Regional Development Plan-RDP), negotiation (CSF), implementation (Operational Programmes-OPs) and evaluation (monitoring and assessment) of the actions for which the funds were used.

3. A delegation of powers by the Council to the Commission to allow for the launching of programmes on the initiative of the Community (CEC, 1990a).

On 20th July 1993, the six revised regulations governing the Community's structural funds for the period 1994-99 (CSF-2) were adopted by the Council of Ministers. The budget for this six-year period was 141 billion ecus, that is, a third of the total Community budget, of which 96 billion ecus was targeted at Objective 1, thus representing a 70% concentration in 1999 of all the structural funds on this objective (CEC, 1993b). At the Edinburgh Summit (Dec. 1992), it was decided to double, in real terms, the structural instruments (structural funds and Cohesion Fund) for four member states, namely, Greece, Spain, Portugal and Ireland, between 1994 and 1999 (Council of the EC, 1992).

The criteria for the designation of areas under Objective 2 (economic conversion of declining industrial areas) and Objective 5b (economic diversification of rural areas) have remained relatively unchanged since their introduction in the 1989-93 period. The former Objectives 3 and 4 were merged into a new Objective 3 with a wider remit encompassing the integration of persons excluded from the labour market. Moreover, a new Objective 4 was established to facilitate adaptation of employees to industrial change and restructuring dealing with their impact on employment and training needs. Also, since 1st January 1995, following the accession of Sweden, Finland and Austria to the EU, a new Objective 6 was created to assist the remote Scandinavian areas (CEC, 1996b).

Compared with the fundamental reform of the structural funds in 1988, the changes made seem a lot less ground breaking. Indeed, the major principles adopted in that year (with the concentration being on effort, partnership, programming and additionality) were subsequently maintained and strengthened, rather than being substantially adjusted in any way. More than 50% of the EU population was covered by the structural fund programmes, having a regional focus, which distributed 85% of the cohesion budget. The degree of concentration of spending declined over the ten-year period of structural programming and as a result, their redistributive effect had been weakened by the 1990s (CEC, 1996a, pp. 97-8).

The 1999 reform package introduced decentralised programming, broader partnerships between Brussels, national and local authorities, and more accountable and transparent monitoring procedures as well as simpler and more exacting management arrangements, including a performance reserve of at least 10% (CEC, 1997). The previous seven priority Objectives 1-6 (Objective 5 had two Objectives 5a and 5b) were reduced to three: two regional (1 and 2) and one horizontal (3) for human resources. Over two-thirds of the structural funds were allocated to Objective 1 (69.7%), a further 11.5% to Objective 2 and 12.3% to Objective 3 (CEC, 1999). This section has provided a summary of the EU financing to member states through the funding instruments in order to promote cohesion among EU areas, in particular, regarding the domain of human resources. I now move on to the EU agenda and strategies to implement the appropriate policies in order to achieve better cohesion and enhance the quality of the labour force via EU funds.

2.3 EU strategies and their impact on national employment models

2.3.1 The Lisbon agenda and the European Employment Strategy

Europeanization can be approached from two directions (Dyson and Goetz, 2003: 14-16): top-down and bottom-up. The top-down perspective focuses on the changes at the domestic level resulting from ‘misfit’ between the European and national levels. Whilst the bottom-up approach, considers domestic opportunity structures in terms of how their actors make use of the EU so as to promulgate their own agenda, legitimize any policy reforms, provide new policy solutions or to keep the costs of implementing European policies to a minimum (Börzel, 2005: 63).

It is only in the last few years that the power of EU money to promote Europeanization has been documented in the relevant literature. An exception to this was research on the accession process regarding the Central and Eastern European countries (CEECs), when EU financial assistance was accepted as ‘reinforcing the transfer of EU models, because the aid helps to pay for implementation’ (Grabbe, 2003: 314). Likewise, the financial element of the EES stimuli was largely overlooked in the EES/OMC literature. Regarding which, over a decade ago, de la Porte and Pochet called for research exploring the role of the ESF and the EES-ESF relationship (de la Porte and Pochet, 2004: 72). However, it was not until 2006 that the importance of the ESF in promoting national policy reformulation was acknowledged (Lopez-Santana, 2006; Jacobsson and West, 2009; Weishaupt, 2009). In sum, when considering the EES domestic impact, the role of the ESF, which has operated as its financial tool since 2000, should not be neglected (Zartaloudis, 2014).

By adopting the Lisbon agenda (2000) and especially the EES in 1997 (Rubery *et al.*, 2008), the EU patently accepted the role of reforming countries’ employment models. In fact, the strategy was forged at the 1994 Essen Summit and subsequently, evolved at European summit meetings. Hence, the notion of member states’ employment regimes being underpinned by VoC was being challenged by the EU. This was despite the reality that at the time a great number of the VoC examples prospering in the global economy were EU nations that had regulated employment

and hence, avoided a free market-oriented system (Coates, 2000; Hall and Soskice, 2001; Amable, 2003).

At the European Council of Lisbon (March 2000), the strategy of reforms was adopted with the view that “by 2010 Europe will have become the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion” (European Council, 2003). In addition, the Lisbon Strategy included the goals of matching the supply and demand for labour, the extension and improvement of human resources as well as changing education and training (INE/GSEE, 2008). These objectives at the EU level were to be achieved by the, so called, open method of co-ordination (OMC), such that common guidelines for action were to be applied for all member states, with there being some quantitative shared targets, but they could pursue their own particular path at their own pace (INE/GSEE, 2008). The literature has employed a whole host of phenomena to conceptualize the domestic impact of the OMC, including policy learning, policy transfer, deliberation, participation, peer pressure, shaming, diffusion and mimicking. All of these different perspectives regarding the conceptualization the OMC’s domestic impact were attributed Trubek and Trubek (2005) within a top-down versus bottom-up axis, who contended that they are not mutually exclusive. High trust relations had to form the basis of a creative and innovative society (Rubery *et al.*, 2008). It became obvious, however, that these aims of the Lisbon Strategy came to be seen as unrealistic in the first period of its application (2000-2005) and it soon became apparent that they could not be realized by EU countries (INE/GSEE, 2008).

However, the EES approach towards the updating of national policies was subject to the influence of other more encompassing EU economic policies, in particular, those regarding competition and macro-economic policy. In effect, the economic policy context controlled employment and social policy, and consequently, inclusion of the EES in the restructuring of member states’ policies was not effective (Rubery *et al.*, 2006; Zeitlin, 2007). Following the readjustment of the Lisbon Strategy after its first round, in 2005, member states were requested to produce National Reform Programme Reports (previously known as National Action Plans - NAPs), so that the EES could be implemented. Specifically, the aim of these reports was to address the ‘four pillars’ of the EES: equality of opportunity, the ability of workers and companies to change, entrepreneurship, and employability (Heyes, 2007). According to the ‘spirit’ of the EES and the Lisbon Strategy, combating

unemployment became mainly a matter of the supply side, with the assumption being that investing in employability, i.e. targeting an adequately trained workforce able to man the expected 'economies of scope' (in the SME sector), would eventually result in a reduction of the burden in relation to public expenditure (Seferiades, 2006).

Regarding the Southern European nations, like Italy, Greece and Spain, despite ALMPs not being fully developed, they grew in significance during the period under investigation. There were two reasons for this: firstly, attention being directed to supply-side policies owing to the restrictions on macroeconomic policy; and, secondly, new active policies being funded by the structural funds (Rubery *et. al.*, 2008). The strictures of the structural funds appear to have had an effect on other policies too. For instance, gender equality measures and policies in Greece were instigated by the EU, initially via the legal framework and then via the EES. As far as Greece is concerned, part-time jobs were encouraged, but to little effect, partly due to influential norms that opposed this form of employment and partly due to demand deficiency (Karamessini, 2007). In Italy (as a result of the Treu and Biagi law reforms) and in Spain greater change was to be seen, but such non-standard employment was mainly found among the young people and women, thereby leading to more segmentation (Banyuls *et. al.*, 2009). However, the key area where the impact of EU funding was most obviously manifested was in the changes and expansion in training policies (Zartaloudis, 2014).

2.3.2 The EU involvement with the VET systems of the member states

For decades prior to this development, VET policy was an autonomous domain of EU member states, thus leaving little room for a common EU policy. However, the 2000s witnessed substantial transformation. While in the 1960s and early 1970s, education and vocational training were considered as appropriate measures for the reduction of income inequalities, by the early 1990s corresponding measures aimed at the provision of vocational training in the European economies seemed to have been adopted for other reasons (Green *et al.*, 1998). The term Europeanization in the field of training refers to the impact of European developments, particularly the EU, on

institutional change in vocational training regimes (Heyes, 2007). In fact, the EES began to encourage social dialogue connected to training (see Goetschy, 1999; Seferiades, 2003), with the ability of European firms being competitive in the long-run and the ‘modernization’ of work organizations being the discourses they promoted regarding the role of training at the time. In particular, technological change and globalization were believed by those promoting the EES to have led to a growing necessity to change and reform the labour market. Hence, adaptability and flexibility were therefore seen as achievable mainly by means of organizations’ use of training. In addition, it was the ability to enhance social inclusion by dealing with the unemployed and disadvantaged sections of the population that led to training to be viewed as an instrument of ALMPs. Consequently, gaining skills as the route to improvement of a person’s ‘employability’ status was emphasized.² Employees, also, were thought to gain through this process as well as the unemployed, since by gaining skills their job security and perspectives of finding a job in the long-run were improved in a labour market that supposedly involved them in more risks than in previous years (Heyes, 2007).

Within the EU, the reform of skill formation systems has been advanced in accordance with the Lisbon strategy. For instance, since 1999 and 2002, the Bologna and Copenhagen processes in higher education and VET, respectively, have articulated the overarching goals of the agenda in European skill formation (Powell and Trampusch, 2012). Consequently, the force of the EU in education policy was no longer to be regarded as marginal, as the developments were not only long-standing, but also increasingly influential in the field of VET. As new governance structures have evolved in the EU, in particular, with the development of the European Qualifications Framework (EQF) and the European Credit System for Vocational Education and Training (ECVET), initiatives following the Copenhagen process, the EU has explicitly challenged collective skill formation systems to reform by implementing overarching standards. The objective of both instruments was to develop common descriptors and standardized assessments of qualifications that could be applied to all educational systems. The underlying principle of these initiatives was to (re)orient systems to learning outcomes and the development of National

² Details on EC Action Programmes in Education and Training can be found in: CEC, 1990b; CEC, 1993a, Tables 2-4; Addison and Siebert, 1994; Milner, 1994 & 1998.

Qualifications Frameworks (NQFs) that corresponded to the description of qualifications laid out in the EQF (Powell and Trampusch, 2012).

When looking back during the period under investigation, the primary Community stimulus to vocational training was to channel funds into national programmes via the Community structural funds, particularly the ESF. The ESF provided subsidies for vocational training, and for the promotion of employment as well as job creation. The fund's prime responsibility resided in Objectives 3 and 4 (in both their old and new formulation - long-term unemployment (LTU), youth unemployment and adaptation of employees to industrial change) as discussed in section 2.2. However, it was integrated with the other structural funds, which meant that it also had involvement with Objectives 1 (lagging regions), 2 (declining regions) and (the old) 5 (agricultural adjustment and rural development). For example, in Objective 1 regions, the ESF financed improvements in education and training structures. Certain details of the ESF (and other structural funds) aid for 1992 are to be found in CEC (1991, pp. 20 and 27-30), and CEC (1992, p. 66).³ Regarding which, most of the ESF's finances were given over to combating LTU and promoting the access of young age groups to the workforce. In fact, about 25% of the structural funds, a sum of 15.3 billion ECU, went towards ESF funding for training courses and employment programmes. These measures (and their funding processes) were intended to interact with a large variety of national systems of VET models (and their financing).

The role of EU moneys was to act as a "carrot" for administration and VET reform in the member states. In other words, the purpose of the funding was not simply to re-skill individuals, but also to promote indirectly different administration and policy (Zartaloudis, 2014). However, despite some of the EU funding being earmarked for reforms in terms of administration and policies, in Greece there was little of this. The next section discusses the different types of VET systems in the EU and the OECD, with the key consideration being whether the Greek VET system fits this typology.

³ Details on other EC Employment Programmes can be found on MISEP (1988), Employment in Europe (1989), Official Journal (1989), CEC (1990c).

2.4 Training systems in the EU

2.4.1 Different types of VET systems

The literature review in this subsection informs the reader about the diversity of training systems in the EU and shows that the skills systems are important in the wider political economy of countries, thus, making a link with policy involving the meso and macro levels. It is rather difficult to present a detailed picture of the different forms of CVT offered within the member states during the reference time period of the current study, which is not only because of the fact that data were not consistent or complete, but also owing to there being no consensual definition of "CVT". According to CEDEFOP (1997), the definition at the time was as follows: "The term 'CVT' is used to cover all types of post-initial vocational training and lifelong learning – whether or not organised, whether school based or at the work place, etc. and irrespective of the nature of their funding, organization and target group". On the other hand, the OECD defined "CET - Continuing Education and Training - as all kinds of general and job related education and training organised, financed or sponsored by authorities, provided by employers or self financed. Included in the definition are training courses on the job as well as off the job, and courses for adults leading to an educational qualification" (OECD, 1995b, p. 39).

Brandsma *et al.* (1995) pointed out that for the Flemish community of Belgium, Greece, Ireland, the Netherlands, Spain and the UK a definition of CVT was entirely absent (national definitions were compiled by CEDEFOP, 1996). Focusing on Southern Europe, Brandsma *et al.* (1995, p. 13) mentioned that "in countries in which general education is more dominant and/or relatively few young people are admitted to initial training, like Portugal and Greece, initial vocational training of adults is seen as part of the CVT system". At the same time, Greece, Spain, Portugal and Ireland had a rather weakly developed system of vocational education. Despite having started to implement reforms, their systems of VET as well as CVT were still in the process of reorganisation and enlargement. A lack of differentiation between VET and CVT during the period under investigation was attributed to the fact that vocational education was still in the process of development at the time (Munk and Lipsmeier, 1998).

Under the VoC lens, it has been pointed out that skill formation affects the economic development of advanced political economies and is also affected by the evolution and development of other socioeconomic institutions. The development of typologies of skills formation systems have contributed to the recognition that there are a variety of training regimes across countries (Busemeyer and Trampusch, 2012), which have various combinations of elements (Finegold and Soskice, 1988; Blossfeld, 1992; Lynch, 1994; Crouch *et al.*, 1999; Ryan, 2000). These works identify some important aspects of variation regarding the institutional design of training, such as: the dominant venue, the level of standardization and certification of skills, the degree of stratification, differentiation in the system of occupational degrees, the state's role, and the linkages between skills formation and other socioeconomic institutions, including the system of production, industrial relations and the welfare state.

Skills systems have also gained prominence in the comparative literature on capitalism. In the seminal volume of Hall and Soskice (2001) on VoC, these systems are viewed as one of the five core socioeconomic institutions that distinguish liberal market economies (LMEs) from co-ordinated market economies (CMEs) - the other four, apart from vocational training and education, are in the spheres of industrial relations, corporate governance, inter-firm relations and firms' own employees. These, consequently, contribute to the specific strategies in national innovation policies and the economic performance of countries. Some of the VoC literature also argues that institutional complementarities exist between skills formation systems and adjacent institutional spheres of the political economy, which leads to mutual beneficial interaction effects (Estévez-Abe *et al.*, 2001; Iversen and Soskice, 2001, 2006; Thelen, 2004, 2008; Iversen, 2005, 2006; Cusack *et al.*, 2007; Iversen and Stephens, 2008; Martin and Swank, 2008; Busemeyer, 2009).

However, the extant literature has some limitations that need highlighting. To start with, there is the inability of the typologies to account for variations of skills formation systems within CMEs and prior work has failed to explain the differences between countries with the same kind of skills formation system. This is because the distinction between liberal and co-ordinated market economies or between general and specific skill systems is very broad and hence, cannot account for the different regimes within the separate clusters (Anderson and Hassel, 2007; Busemeyer, 2009; Trampusch, 2010a, 2010b). Also, the heterogeneity of the group of CMEs is much larger than it is for LMEs (Busemeyer and Trampusch, 2012). Furthermore, the

authors of the VoC literature have generally overlooked the need to understand the political and historical origins of skills formation systems, preferring to investigate their effects on political economies. In the early contributions, the question of origins was explicitly excluded from the analysis (Estévez-Abe *et al.*, 2001:147; Hall and Soskice, 2001), but more recently, this has changed (Thelen, 2004; Cusack *et al.*, 2007; Iversen and Soskice, 2007; as well as Swenson, 2002; Mares, 2003). Nevertheless, some scholars (Jackson and Deeg, 2006; Bohle and Greskovits, 2009; Streeck, 2009, 2010) have criticized the static and functionalist character of the VoC approach. In addition, because the VoC approach emphasizes the mutually reinforcing institutional complementarities of different “skills equilibria” (Finegold and Soskice, 1988; Hall and Soskice, 2001), its theoretical tools are less well developed when it comes to explaining the transformation of these systems. Training systems are fragile institutional arrangements and if the division of labour between firms, associations, and the state changes, regime shifts are possible (Busemeyer and Trampusch, 2012). These authors have also emphasised the desirability of more research on the links between skills formation systems and industrial relations.

Streeck (2012) found a positive association across countries between the importance of apprenticeships (relative to full-time schooling) and social protection. This is explained by the observation that the apprenticeship systems of CMEs favour firm-specific skills, thus resulting in skilled workers calling for social protection in the event of them losing their jobs. In contrast, LMEs, with their predominantly school-based systems, tend to produce general skills, which enable skilled worker to change jobs with no substantial loss of pay, if any and hence, there is lower demand for social security. Busemeyer and Trampusch (2012) have contended that there are two aspects of variation that provide useful distinctions when describing different skills regimes: the level of firm involvement in the provision of initial vocational training and degree to which the public is committed to vocational training (or more generally, the degree of state involvement in such training). *Table 2-2* contains a synopsis of the key characteristics of vocational training systems of the main OECD countries. These typologies are useful in contextualising the Greek case in the field of training, because, as will be seen later, it does not belong to any of these variations. That is, Greece constitutes a separate case exhibiting some elements of the characteristics illustrated, but not to the extent that its case could be assigned to one of the boxes below.

Table 2.2 Variations in vocational training systems		
	<i>Firm involvement low</i>	<i>Firm involvement high</i>
	Schools dominant; apprenticeships play a supplementary role	Apprenticeships dominant; schools play a supplementary role
<i>State commitment low</i> Non-certified, non- portable skills	Great Britain, United States (liberal system) General skills/education Some in-firm practical training Few apprenticeships	Japan (segmentalist system)
<i>State commitment high</i> Certified, portable skills	France, Sweden (statist system) Schools dominant; some apprenticeships for highly skilled workers	Germany (collective system) Dual system of schools and apprenticeships

Source: Martin, 2012

Firm involvement in training is high where co-ordination is sufficiently strong to prevent poaching of trained workers (logic of membership), whilst state involvement is dominant when it is perceived that there needs to be a consensus between the state, employers and unions (logic of influence). In Greece, as will emerge later, the involvement of the employers and unions in the vocational training system has been marginal. The level of conflict within employer or union organizations also determines the extent to which skill regimes are collective. As Martin's (2012) work on the origins of collective skills formation system shows, centralization makes it more likely that employer associations will want to operate at the national level, whereas federalism locates policy making at the regional level, which results in 'regionally fragmented associations' (p. 47). As will become apparent in chapter 8, the Greek State has a long tradition of centralized organizational structure and this has affected the function of its vocational training system. To demonstrate the variation of financing models during the period under investigation,

below, a typology of the funding VET systems in the EU drawn up by Sellin (1995) is provided and I refer to how Greece fits into this typology. According to this author, the following financing models were to be found in the EU and still exist to this day:

- The liberal system (e.g. in the UK). The quantity and quality of initial and continuing training is mostly decided by businesses, but the levels of these are established by the government, which may also establish graduated quality standards, without, however, controlling the route taken towards their certification.
- The neo-cooperative model (e.g. in Denmark). The financing process is organized by employers and trade unions, whilst the government merely rubber stamps group consensus.
- The interventionist model (e.g. in France). The state acts as the protagonist (the same happens in Greece but in terms of co-financing, since the lion's share comes from the EU funds), but the social partners are included (this is not the case in Greece).
- The dual training system e.g. in Germany. This is essentially, a school and business-based training system that is corporately controlled (Koch and Reuling, 1997). Group consensus is responsible for the curricula of training and certification, but liberal principles with corporatist components (e.g. collective bargaining agreements on training) form the basis of financing.

In Denmark, a country with a population half that of Greece, the state was responsible for the development and maintenance of vocational training. Similar to the German system, its vocational training system was arranged on a dual basis, i.e. the training programmes were hosted by business and inter-firm vocational training agencies. Each organization paid the same fixed amount as an obligatory fee. There was a tax which was imposed and the money was given back to these agencies through a fund. On-the-job initial training was partly assured by this refinancing process. The employer and employee fees went into a central fund, the regulators of which controlled the expenditure on continuing training (CEDEFOP, 1998c). In Denmark, those taking part in initial vocational training did not contribute a great deal to direct financing. There were cases where trainees had to pay for their continuing training fully or partly, but often these costs were tax-deductible and so equivalent to

governmental co-financing. Moreover, funds were provided, indirectly, to finance training for disadvantaged people, the jobless and other target groups through general taxation (CEDEFOP, 1998c).

The following table shows the main differences of the VET systems in Germany and Greece, according to certain criteria (see *Table 2-3*), because the former nation is widely perceived as having the best, if not the best, vocational training system in Europe. Also, the table shows some of the inefficiencies of vocational training in Greece.

Table 2.3 Comparative synopsis of the VET systems for Germany and Greece

Categories	Germany	Greece
System	Dual system (vocational school and company)	Vocational public and private schools
Learning venues	Learning workshops, companies (production, trade, administration), interplant training centres (external training centres), classrooms, specialist rooms	Classrooms, laboratories, workplaces, vocational training centres
Responsible bodies/financing	Companies; public administration resources: municipalities personnel: federal state	Government/ EU, government and companies, for training. Tuition fees in private IEK for initial vocational education.
Jurisdiction	The federation (company) the federal state (school) regulated in detail	Government; no concrete implementation measures
Responsibility for vocational education	Horizontal and vertical administration	Hierarchical structure; horizontal and vertical administration
Regulations	Training directives (for in-	Regionally different; no

	plant training), school laws, framework curricula by the federal state (for the school- based training) and for the professions that require training	standard curricula. Each region or city implements own syllabus
Didactical approaches	Framework curricula are structured according to learning fields, trainees are to plan, check, correct and evaluate independently	Lessons are structured according to subjects; trainees are objects of professional action by the teacher
Certification	Craft certificate/certificate of apprenticeship/certificate of management assistance in wholesale and export trades (chambers); vocational school qualification; school qualifications in courses with double qualifications	Vocational school certificates, vocational training centres (KEK) certificates
Teacher training	Nine semesters of teacher- training course; two state examinations, with each teacher being responsible for vocational specialist and general lessons	No uniform staff structure for vocational school teachers, theory and practice lessons are separated; there are many theory teachers but insufficient practical ones
Characteristics	Long tradition relating to trades and a dual system; concrete regulations and detailed law	Regional differences; central control in financing and planning; regional flexibility in materialisation

Source: Adapted from Schnarr *et al.* (2008)

These characteristics of the Greek system will be discussed further in later chapters. More specifically, what is provided here is the context of the Greek VET that will be analysed in depth in chapters 6 and 7 as well as examined econometrically in chapter 5. Regarding convergence or divergence of EU training systems at the time of the investigation, an interim report prepared for Petra I (Brussels, December 1989) showed just how diverse the education and training systems of the EC were. Wide gaps existed in 1989 between the percentage of young people participating in the educational and training systems, ranging from 56% of 15-year olds in Portugal to 100% in Germany, whilst these figures were 47% and 99% respectively for 16 year olds, and 28% and 81% respectively for 18-year olds. Within the group offering the most training to young people (Germany, France, and to a lesser extent Denmark, Netherlands and the UK), there were significant differences in approach, notably regarding the proportions of school-based and firm-based training. Roughly speaking, two models of initial vocational training could be identified: the German dual system, with its greater emphasis on market forces; and the French, with its concentration on educational institutions and formal qualifications.

New links were established between vocational training and general education in the 2000s in all nations of the EU, but with different results. Whilst vocational training was being constantly pushed to one side to make way for general education in the liberal economies, in the co-ordinated ones these links were deemed necessary to meet the ever more complicated needs newly emerging jobs, such as the increasing significance of soft skills (Bosch and Charest, 2008). So, it is necessary to explore what happened in Greece to see if they did try to reform and what it meant for the efficiency and effectiveness of the Greek training system.

2.4.2 CVT and the unemployed in the EU: Participants in training activities

Since unemployed persons, in general, could not participate in CVT measures provided by enterprises, most of them participated in compensatory or curative CVT offerings that were provided and financed by governments or other bodies. These measures should have been primarily aimed at the most vulnerable among

unemployed persons (e.g. low skilled), but the empirical data show a different picture. *Table 2-4* illustrates that in the mid-1990s across all EU countries the higher qualified labour force had a significantly greater chance of gaining access to publicly paid CVT. Moreover, the table also depicts that CVT participation of the unemployed was generally rather low in the mid-1990s and only in those member states that used this form of training as an instrument to combat unemployment were the engagement rates high. This was the case in France, where unemployed workers belonged to the most important target group of CVT. Germany had much lower rates of unemployed CVT participants, but its specific programmes funded by governmental legislation (according to the Employment Promotion Act) with considerable support for the unemployed were probably under-represented in the OECD figures. This could be due to the fact that in some countries retraining measures were not defined as CVT (OECD, 1995). Data for Greece are presented in detail in subsection 6.2.3.

Table 2.4 Participation in job related CVT as a percentage of the unemployed population aged 25 to 64 in the EU

	Year	Primary education	Lower secondary education	Upper secondary education	Non-university tertiary education	University level education	All levels of education
During the 12 month period preceding the survey							
France	1994	14	22	38	66	75	35
Germany	1994	8	10	19	24	21	16
During the 4 week period preceding the survey							
Belgium	1994	-	-	-	-	-	5
Denmark	1994	-	7	12	10	18	11
Ireland	1994	0.4	1	4	8	9	2
Italy	1994	-	-	-	-	-	1
Spain	1994	1	5	16	14	35	8
UK	1994	-	2	7	15	14	6

Source: OECD (Education at a glance), 1995, p. 134.

For the EU as a whole (see *Table 2-5*), unemployment in the 20-29 age group who had supplementary VET was less than half that of those in the same age group without such further training (11.5% compared to 23.5%). With regard to the individual member states, young people with additional VET were in a more advantageous position in the labour market than those without, except in Spain,

Portugal and Greece (see *Table 2-5*).

Table 2.5 Unemployment rates among young people (20-29) with only basic education and those with supplementary vocational education and training (EU - 1995 figures)

COUNTRIES	ONLY BASIC EDUCATION	ONLY BASIC EDUCATION PLUS SUPPLEMENTARY VOCATIONAL EDUCATION / TRAINING
EU-14	23.5	11.5
Belgium	24.3	19.7
Denmark	17.7	8.5
Germany	16.2	7.6
Greece	14.3	20
Spain	33.9	34.9
France	30	17.1
Italy	22.2	15.9
Luxembourg	5.7	:
Netherlands	14.8	7.2
Austria	:	4
Portugal	11.2	16.2
Finland	35.4	23.6
Sweden	21.7	:
UK	18.5	10

Ireland – No figures available

: = Data unreliable

Source: Eurostat (as found in Economic and Social Committee of Greece, 1998, p. 31).

The last table clearly shows that training was more effective in Northern European countries than in Southern Europe regarding people with only basic education. Despite training being better organized in Northern Europe owing to their being a long tradition of investment in it, there are, however, problems in the design and implementation of the training programmes in all European countries, as discuss in the next subsection.

2.4.3 Vocational training in the EU: Main problems

Rapid change in technology is considered as being the most important factor behind the increasing need for vocational training and the corresponding pressures to introduce changes into the training courses in terms of their methods and curricula. However, the speed of technological change has been creating a high degree of uncertainty concerning the appropriate future orientation of both the demand and supply of labour. Such uncertainty can lead either to unsuccessful attempts to anticipate future demands for skills or to the unnecessary preservation of existing structures until future trends become more clear. This last strategy is often seen in courses designed to provide specific rather than general training, which results in people being trained only in a skill that has low demand or even ones that have or soon will become obsolete. A comparative study (Dedoussopoulos *et al.*, 1995) of the vocational training systems in three different EU regions (Central Macedonia, South Wales, Lower Saxony), one of which was in Greece, was aimed at the designing of a typology of the most important problems faced by vocational training during the time period under investigation, as presented in *Table 2-6* below. For most of the parameters in the table, I will provide evidence for Greece later on in chapters 6 and 7.

Table 2.6 Main problems of vocational training programmes in the EU during the 1990s

EXTERNAL FACTORS	INTERNAL FACTORS
<ul style="list-style-type: none">• Overall crisis• High concentration of industries in crisis• Uncertainties concerning changes in skills• Hiring policies of firms	<ul style="list-style-type: none">• Lack of knowledge of labour market situation and of skills needs• Lack of communication – lack of marketing between training designers and social partners• Lack of determination of target groups• Lack of training methods and standards

Source: Dedoussopoulos *et al.*, 1995

Another serious problem was the lack of transparency between the different CVT systems. Regarding these, the European Council 1993 stated that because of the variety of measures and forms in Europe, it was nigh on impossible to get an overview of their impacts and results (CEDEFOP, 1998b). Also, according to van

Lith (1998), *ex-post* calculations of the returns, growth and employment effects could not help state bodies, when it came to substantiating subsidies or the financing of specific VET investments. Specifically, they could not explain what type of education and what scale was required by industry and public administration or which forms helped to reduce the risk of unemployment, promote innovation or led to increased productivity. In sum, the needs of the labour market, which are forever changing, have not been adequately met by the VET systems, whether initial VET or continuing VET as they have not delivered the latest skills and competences to many who have participated across the EU.

2.5 Conclusion to the chapter: Framing the research questions

In my opinion, what has become clear in this literature review is that the EU approach to vocational training has been very much influenced by the human capital theory. For the policy makers in the EU the key aim has been to improve job matching within a (market driven) European economy, where private investment will generate a demand for high skills in national labour markets. High-skilled economies presuppose more and better jobs and for them more and better training is necessary. The integrated system of training courses offered by various private and public agencies in Greece was essentially set up following the EU co-financing of all training activities at national and regional levels from the late 1980s up to now. It is within this framework that I will address the main research questions of the thesis, namely:

- What was the impact of EU funded vocational training on the Greek labour market and individual job seekers who undertook this training from 1988 to 2000?
- How can this impact be explained?

To address these questions my research is organized along three inter-related levels of analysis (micro, meso and macro) that correspond to the following research sub-questions:

- 1) What was the impact of the training programmes at the participant level? (micro-level);
- 2) Was the training system, i.e. the institutions, in Greece, both regionally and nationally, effective in helping people to find jobs and if not, why? (meso-level); and

3) To what extent did the ALMPs in Greece, in particular the policies of vocational training, integrate EU-funded training in their skills strategy? To what extent was any (in)effectiveness of ALMPs related to the characteristics of the Greek political economy? (macro-level).

The next chapter (3) is the methodology chapter. Also, some data issues regarding labour market statistics in Greece are considered, and the quantitative technique is explained and justified for exploring the research questions.

CHAPTER 3: METHODOLOGY

3.1 Introduction

In the previous chapter I discussed the European framework for funding vocational training programmes. This chapter presents the methodology of the thesis. Given the main aim is to investigate why the training programmes in Greece during the period 1988-2000 were unsuccessful in helping those with the greatest need to find work, the purpose here is to explain and justify the approach adopted for carrying out the research. I begin by discussing the relationship between the micro, meso and macro levels (section 3.2), which sheds light on why I have researched all of these three. I outline the approach taken to collect and analyse the data for each level, starting with the propositions used for the testing of the LFS micro-level data. In section 3.3 there is a discussion of the challenges faced regarding the collection of data and limitations in terms of the nature and coverage of these. This is followed in section 3.4 with an explanation of the econometric analysis involving the application of the logit model to the LFS data.

3.2 The three levels (micro-meso-macro) of analysis and how they are related

The aim of this thesis is to explore the impact of EU funded training in Greece. The key point is to make explicit how we can evaluate success or failure of EU funded training programmes. Underpinning this work is the notion that we need to take also into account other institutional factors apart from individual trainee characteristics. However, ultimately it is the micro-level results that show if they had any impact on the labour market (hence the importance of the micro-level analysis). I propose an analytical strategy that brings together three levels of analysis that demonstrates that they relate to each other. I argue that the micro-meso interaction is not independent from the meso-macro.

So far, the existing research on the impact of training on the Greek labour market has been only qualitative, based on interviews which covered only specific NUTS-2 or NUTS-3 areas and not the entire country nor do they cover both of the

two first CSFs.⁴ The analysis comprises three steps in accordance with the three identified levels. For all three levels, first, I discuss the relevant literature and this is followed by consideration of the empirical evidence. At the micro-level (chapters 4 and 5), I examine whether there was a lack of effective information networks for the prospective trainees, especially for the unemployed, and whether the vocational training courses increased the chances of finding a job at the participant level. The chapters on the micro-level include a literature review on micro-theories followed by an econometrics chapter. This part of the thesis will determine whether or not the programmes did help the unemployed to get any work and addresses the first sub-question, namely “what was the impact of the training programmes at the participant level?”. This question was operationalized by empirically testing the following sub-questions:

- Did the social and demographic characteristics of an individual in Greece affect the probability of finding employment during the period under investigation?
- Did the introduction of training courses funded by the EU have a statistically significant effect on the probability of finding employment?
- Did university graduates in Greece face greater difficulties in finding a job compared to those less educated (as relevant literature and aggregate statistics have suggested - see Meghir *et al.*, 1989; OECD, 1990a; Eurostat: Education and Employment Prospects, 1995; Iliades, 1995; IN.E./GSEE-ADEDY, 1999; Katsikas, 2005)?

At the meso-level (chapters 6 and 7), I probe whether there were legal regulations concerning the teachers of vocational training courses in Greece, and if there was any serious evaluation of the training programmes in terms of participant monitoring after training and the effects of vocational training courses on employment. Also, I explore whether there was a mechanism to estimate the real needs regarding CVT, if the function of employment offices was helpful for the

⁴ Kassimati *et al.* (1984), University of Piraeus (1990), KODE (1991), URDP (1992), ANA.V.EL. (RDA of Northern Greece Ltd) - (1993), Panteion University-PLA.NE.T. A.E. (1993), Chasapis (1994), EKOM Business Consulting Services (1994), Getimis *et al.* (1994a), Getimis *et al.* (1994b), Getimis and Gravaris (1994), KOE (1994), T.Q.M. Hellas Ltd (1994), University of Macedonia (1994), University of Patra (1994), University of Piraeus Research Centre (1994), Dedoussopoulos *et al.* (1995), Goumenakis and Michaelides (1995), Kafkalas *et al.* (1995), Chasapis (1996), Dimoulas and Michalopoulou (2008), Zartaloudis (2014).

matching between supply and demand for labour, and if there was an involvement of social partners in determining the needs regarding education and training. I also identify any parameters that were not working effectively in Greece and how these impacted on the matching mechanisms in the labour market for Attica and Central Macedonia as well as the nation as a whole. This addresses the second sub-question “Was the training system, i.e. the institutions, in Greece, both regionally and nationally, effective in helping people to find jobs and if not, why?”. It is at this point where the meso meets the macro and vice versa: the institutional/ meso level operationalises the ALMPs. This analysis of the meso-level helps in identifying which institutional factors affected the implementation of ALMPs and how far the institutional structure and capacity of the Greek state played a role in facilitating or not the effective and efficient implementation of policies.

For the research at the meso-level, given the paucity of statistical data, I had to rely on previously compiled data and secondary documentary evidence. Collecting data for this level of analysis involved an extensive literature review of policy documents and academic research published in English as well as in Greek. In sum, this literature was drawn upon to help explain the findings in chapter 5, thereby helping to build the bigger picture involving the three levels. The aim of chapters 6 and 7 is to describe the VET structure and to investigate why the Greek organisational structure could not provide adequate skills-matching, through the use of secondary data (other studies). Both these chapters pertain to the meso-level of analysis. The difference in content and purpose is that chapter 6 discusses the situation at the national level, whereas chapter 7 examines if there were any regional variations.

Lastly, the macro-level of analysis is presented in chapter 8, with the aim being to contextualize the focal phenomenon of EU training and job outcomes in Greece, during the period of interest, the political system is examined by international comparison across the EU. Specifically, I investigate the features of labour markets and ALMPs as well as different VoC characteristics. This is so as to provide understanding of the particular aspects of the Greek political economy that resulted in an institutional framework that was incapable of delivering an effective training policy. Moreover, the impact of ALMPs on labour markets in certain EU countries is examined as well as the wider macroeconomic policy. As with the meso-level of analysis, the discussion is constructed by drawing on academic scholarship from across the EU. In addition, there is detailed analysis of the structure of unemployment

during the focal period. This final level of analysis completes the three level approach aimed at providing a comprehensive response to the research questions, which could be not achieved by omitting either of the meso and macro levels from the analysis. In sum, it is contended that it is essential to consider all three levels if the goal is to obtain deep understanding of the phenomenon of interest, namely, the function of EU training programmes in Greece between 1988 and 2000. To help the reader to understand the different levels and their associated literature, I have drawn up *Table 3-1*, which summarizes the above discussion.

Table 3.1 The analytical framework of the thesis:

Levels of analysis, corresponding chapters, literatures reviewed, types of analysis and types of data

Level of analysis	Corresponding chapters	Indicative literatures reviewed in chapters	Type of analysis	Type of data
Micro-level <i>(behavioural and individual characteristics, impact of training at the participant level)</i>	4 and 5	Human capital approach and human capital theory Matching theory	Quantitative (micro-econometric analysis)	Quantitative data: individual anonymized records (micro-data) of the 1992, 1994 and 2000 LFSs for both employed and unemployed
Meso-level <i>(the organisation of vocational training and institutional complementarities)</i>	6 and 7	Vocational education & training structure Function of manpower employment organizations	Qualitative (institutional analysis and secondary analysis of evaluation studies)	Policy documents, a number of (mainly) qualitative evaluation studies, aggregate statistics
Macro-level <i>(national political economy, the organisation of labour markets and the role of ALMPs)</i>	8	Hysteresis Comparative political economy or varieties of capitalism The role of ALMPs in the European Employment Strategy	Qualitative (institutional analysis and analysis of political economy characteristics based on secondary data)	Aggregate statistics, academic literature, a number of (mainly) qualitative evaluation studies

3.3 Challenges with data collection and limitations

The biggest challenge in carrying out this research was the lack of data for Greece at all of the three levels for the period of interest, which could explain why similar research has not been attempted previously. In researching the two other levels - meso and macro - I collected and reviewed nearly every single evaluation study or academic research paper that referred to Greek system on these issues at the time reference of the study (and beyond) and I did that systematically. The focus in this section is on the difficulties faced when collecting micro-level data for the original econometric analysis.

Regarding the micro-level, despite it being feasible to produce various types of longitudinal data sets from existing administrative registers in many countries, up until the end of the 1980s the statistical bureaus seemed, in principal, to be very reluctant doing so due to data confidentiality (Westergaard-Nielsen, 1989). However, in the 1990s the EU member states one after the other started to permit access to LFS micro-data for scientific research. Nevertheless, access to the Greek LFS micro-data remained officially forbidden and it was one of the few EU member states where researchers could not make use of the individual anonymized records of the LFS for scientific purposes until the mid-2000s due to the Data Protection Act. Only since 2005 has the situation changed and these data are now available to researchers.

Felstead *et al.* (1998) have pointed to difficulties connected to using European LFS, such as the fact that the questionnaire was greatly modified in 1992, thus leading to an interrupted sequence in the data. A bigger problem is that of proxy interviews, where the person is not there to be interviewed and a member of their household provides information on their behalf. In the ELFS proxy interviews are common, because they are cheaper than returning to the houses to interview the individuals in person. According to Felstead *et al.* (1998), proxy interviews create a special difficulty for the analysis of training data. For, although the person answering the questions by proxy might know a certain amount about the status of a member of their household in the labour force, they will not necessarily know the details regarding their training, particularly if it is only of short duration or on-the-job in nature. The issue is exacerbated regarding the young, because they are more likely to be assessed through proxy interviews, being the group with the greatest possibility of being involved in training and hence, absent from the home when the surveyor visits.

The questionnaire of the Greek LFS was greatly modified in 1992 and 1998. In this

research, the individual anonymised records (micro-data) of the 1992, 1994 and 2000 LFS for both employed and unemployed (1.5% of the total population of each area) are examined. The reason I chose these years is because 1992 was the first year in the Greek LFS questionnaire with detailed questions on training, 1994 was the first year after the end of the CSF-1, whereas 2000 was one year after the end of the CSF-2. In Greece, the LFS is still the most reliable and widely used source of labour market data. Carried out annually until 1997 with a sample of about 150,000 records for the whole country, it provided information about long-term changes, but being always conducted in the second quarter of every year, it provided no information about seasonal movements. Since 1998, it has been conducted four times a year with a sample of about 80,000 records in each of the four quarters with one sixth of the sample rotating (being replaced) every quarter (ESYE). The system of codification excluded any linkage of data for the same household in successive years, as was true in other countries.

The main changes to the Greek LFS questionnaires between 1983 and 1991 were with regard to education, and between 1983 and 1992 with regard to training. In relation to education, the new system gives a fuller picture of developments at the different levels (primary, secondary and post-secondary). However, the records for technical and vocational instruction are incomplete and in some cases worse than under the older system. For example, under the new system, the questionnaire includes all those with a diploma (other than KATEE [ex-TEI] / Technological Educational Institution [TEI]) from a post-secondary technical vocational school of which there are many types (art, merchant marine, ecclesiastical, services, aircraft technicians, electricians, etc.), which lumped together as “other” rather than being listed analytically as they were in earlier questionnaires. From 1999 onwards, there was more detailed information on education, but this pertained to only the four weeks prior to the survey date.

Concerning training, whereas until 1991 the only question in the Greek LFS was “participation in a training course during the last four weeks prior to the survey”, since 1992 the questions have been more detailed, including participation (completion of training courses) in the four types of training programmes (apprenticeship, intra-firm training, CVT, popular training), which I research with the logit model (logistic regression) - (see chapter 5). From 1999 onwards there was more information on training, with a question about the number of years since the interviewee had finished the training programme(s). The question “participation in the past in training course(s)” appeared for the first time in the 1992 LFS questionnaire, which refers to the interviewee having completed one or more training

courses. The variable “participation in training course(s) during the four weeks prior to the survey” has a large amount of missing values and therefore, has been left out from the analysis. The apprenticeship and intra-firm training investigated by the Greek LFS were those lasting at least one year according to the 1992 and 1994 questionnaires. However, in 2000 all training questions referred only to those who completed a training course lasting at least six months.

Moreover, due to data limitations, it is not possible to explore the impact that the duration of courses, thematic fields, number of participants, duration of unemployment period of the trainees have on unemployment. Also, the Greek LFS has no information on wages. Another limitation of the research is that the data available are cross-sectional rather than longitudinal and therefore, it has not been feasible to study any population changes across time. In sum, having considered all the available sources the only way to achieve the desired results of the current research was to use the LFS micro-data, which are survey data based on probability sampling (random sample). For, the European Community Household Panel Survey (ECHPS) and Survey on Income and Living Conditions (SILC) data have been designed for the countries as a whole and so cannot be analyzed at the regional level. Equally, individual census records do not exist for Greece, unlike in some EU countries, so the LFS was deemed the only option to achieve the research goals.

3.4 The econometric analysis: The logit model for applying the micro-data of the Greek LFS

The basic aim of the econometric analysis was to test the impact that training programmes (apprenticeship, intra-firm training, CVT and popular training) and educational level had on people’s job prospects in the regions of Central Macedonia and Attica, as well as in the rest of the country, during the implementation of the CSF-1 (1989-93) and the CSF-2 (1994-99), accounting for demographic characteristics, such as age, gender, marital status, area of residence and immigrant status. I used a logistic regression model for studying differences between those that did participate in training programmes and those that did not. Moreover, regression models allow for group comparisons by adjusting for demographic and socioeconomic variables. I also carried out interaction effects and collinearity statistics analyses. I merged all three years together in order to take advantage of the time-series features of the data (three time-sets of observations in 1992, 1994 and 2000) and used

dummies for the years instead. I have generated one model with all the main effects, all variables of interest, plus all the control variables and have run it in a pooled format. Namely, I have pooled together all the available data into one database. Also, I have aggregated some of the categorical variables with few observations (types of training) in order to increase the observations within each cell, so as to avoid exceptionally large coefficients and confidence intervals. I also conducted marginal effect analysis, but the results did not contribute anything new or different in comparison to the analysis of the main effects and therefore it was omitted from the thesis.

In the logit model, the dependent variable takes two possible values (employed versus unemployed). The nine explanatory variables are the participation in training courses with five categories, including the four types of training completed (as mentioned above) all together as one variable in order to increase the number of training records and non-participation in training courses as the reference category. In addition, there are six levels of education, gender, four categories of age group, marital status, location (Athens or Thessaloniki, the remaining urban areas, semi-urban areas and rural areas), geographical area at the NUTS-2 level and above (Central Macedonia, Attica and rest of Greece), the time (1992, 1994 and 2000), and immigrant status according to citizenship. The models were fitted using SPSS version 18.0. The estimated coefficient of b is very high in the case of the variable "registered in OAED" and so this variable has been left out from the analysis.

The effect of demographic variables, such as age, gender, marital status, location, as well as educational level and participation in training programmes on the employment status, is investigated with a logistic regression model due to the categorical nature of the dependent variable, which is written as:

$$\text{logit } P(y = 1 | x_1, \dots, x_k) = \log \left[\frac{P(y = 1 | x_1, \dots, x_k)}{1 - P(y = 1 | x_1, \dots, x_k)} \right] = \beta_0 + \sum_{k=1}^K \beta_k x_k$$

where, $P(y=1 | x_1, \dots, x_k)$ and $1 - P(y=1 | x_1, \dots, x_k)$ denote the conditional probability a randomly selected individual is 'unemployed' and 'employed', respectively. The coefficient β_k denotes the multiplicative effect that a unit increase in the explanatory variable x_k has on the log odds of being 'unemployed' than 'employed' after controlling for all other variables in the model

and β_0 is the intercept of the model and the value of the logit when all the explanatory variables take the value zero. Consequently, a unit increase in the explanatory variable x_k multiplies the odds by e^{β_k} controlling for all other variables in the model. Solving the above formula with respect to the conditional probability we have:

$$P(y = 1 | x_1, \dots, x_k) = \frac{e^{\beta_0 + \sum_{k=1}^K \beta_k x_k}}{1 + e^{\beta_0 + \sum_{k=1}^K \beta_k x_k}}$$

A complete list of variables together with their coding values that I use in the model appear in *Table 5-1 (in appendix)*. These explanatory variables are among the most important ones generally acknowledged as affecting access to labour markets (according to numerous international studies on training evaluation mentioned in chapter 4) notwithstanding the fact that the Greek LFS lacks some important information recommended as salient variables in other studies. The base (or reference) categories are those with which the rest of the corresponding variables are compared. The reference categories are chosen so as to match the needs of the research.⁵ In the next chapter, the literature review pertaining to the micro-level on training and labour market mismatch is discussed. Also, the impact of training programmes on the employment prospects of individuals in the EU, according to the existing literature, is assessed, with the results being based on both cross-sectional and longitudinal data.

⁵ The working age population is between 14-65 years old. However, SPSS would not accept these age limits, defaulting to 13 and 66 years old, so I included people from 15 to 64 years of age, which the programme was able to compute.

CHAPTER 4: MICRO-LEVEL OF ANALYSIS I

4.1 Introduction

This chapter reviews literature from the micro-level of analysis, focusing on the debates that were taking place during the reference time period of the study. The theoretical literature regarding the micro-level of analysis is reflected in the empirical findings on the impact of training in various European countries, which is why they are both covered in this chapter. As explained in the introductory chapter, the aim is to link the micro, meso and macro levels pertaining to training literature and prior studies, which has been seldom pursued in extant work. These literatures are important, because they inform my empirical analysis using the LFS-micro-data. In this chapter, micro-level theories on training and mismatch are discussed as well as the impact of vocational training at the participant level according to various international micro-econometric studies. The next section discusses the theoretical approaches at the micro-level.

4.2 Micro-level of analysis: Theoretical approaches

When considering micro-level interactions in the labour market, this covers behavioural models, examining behaviours and the characteristics of individuals, with a special emphasis on training. Behavioural models are classical micro-economic models (incentive structures, disincentives, models examining the individual and his/her characteristics etc.) and the key interest here is to review the relevant literature to assess whether it can shed light on why job matching is effective or not in the labour market.

4.2.1 The human capital approach and human capital theory

The role of education in explaining how the labour market operates represents one of the main areas of disagreement amongst labour market theorists. During the late 1950s and early 1960s, the neoclassical theory of the labour market emerged with the development of human capital theory. Becker (1964 and 1975) published a book with the title “Human Capital”, which developed a theory of human capital formation and analysed the rate of

return on investment in education and training. Whilst the human capital literature has highlighted several productivity-related characteristics, theorists traditionally put most emphasis on the importance of education and training as the main component of productivity (Blaug, 1975). Education, it was suggested, provides the basic skills of reading and writing, cognitive skills, and the ability to learn, which will increase an individual's productivity in all jobs (general human capital). Whilst vocational education, on the other hand, will increase an individual's productivity in a narrower range of jobs by providing more specific skills (specific human capital). Becker (1962) distinguished general and specific human capital of workers as well as dividing the latter into employer- and employee-financed on-the-job training. More broadly, the theory of specific human capital predicts that where the fixed costs of employment due to on-the-job training are greatest then unemployment is lowest (Rees, 1973, pp.118-20). Unlike human capital theory, Iversen and Soskice (2001) rather than classifying skills as being general or specific, termed them portable or not portable, respectively. For them, the portability of general skills resides not in their market situation, but rather, in their intrinsic nature as assets, with their being substantively broad, i.e. unspecialised and requiring a high academic education level. Specific skills, by contrast, are non-portable and narrow, in the sense of being specialised as well as low level in that they require little academic training (Streeck, 2012).

In keeping with the traditional theory of human capital (Becker, 1964; Ben-Porath, 1967; Mincer 1974), which pertains to its economic role, particularly with regards to education achievement, there has been a considerable amount of empirical research on the closely related topics of education and skills, including Prais (1995) and Murray and Steedman (1998). Moreover, closely related to the current research is study on the increasing role of skilled labour in the economy (Berman *et al.*, 1994; Machin, 1996; Machin and van Reenen, 1998). Human capital can be measured in three main ways according to Le *et al.* (2003): the cost-based approach, the income-based approach, and the educational-stock-based or indicators approach. This distinction also appears in the work of Liu and Grecker (2009), Gu and Wong (2010), Li *et al.* (2010), and Jones and Chiripanhura (2010). Below, the role of training as human capital as found in the literature is examined in more detail, because the theories associated with it have been informing policies on training for a number of decades.

4.2.2 Training as human capital and the matching theory

To examine what constitutes training, it is necessary to divide it into its two significant forms. Firstly, it is possible to view it as an investment in human capital, perhaps adding to the skills gained during compulsory education. Secondly, it can represent a replacement of general schooling by specific company training owing to there being a mismatch between skills the employee has and those needed. Theoretically, these different types come under two main theoretical viewpoints, the: human capital theory and matching theory. At a first glance, these perspectives appear to be similar as they both support the notion of investing to train in order to add to skills. However, as becomes apparent below, the two theories are based on diverse approaches to training (van Smoorenburg and van der Velden, 2000).

Proponents of human capital theory hold that it is the type of training input that largely determines the amount of increase in job tenure and this will be greater if it is particularly connected to the company, than if it is general (in the classroom). Moreover, under such circumstances it is less likely the worker will leave and employers are not inclined to let workers go when they have paid for them to learn particular skills. By contrast, when training is general, there is nothing to tie the worker to his existing job, since his skills might be of use in all companies. If these assumptions are true, it is reasonable to assume that classroom training is more transferable for the unemployed and training at work leads to greater job tenure (Cockx *et al.*, 1998). On the whole, employers need skilled workers, who have a record of work experience as well as training, so classroom training is not sufficient on its own.

However, the theory of human capital has been criticized for not being able to explain comprehensively the functions of vocational training, for it merely considers it as an investment (Papakonstantinou, 1998). Nonetheless, it has provided the spearhead for the spread of programmes of intensive continuous training and the mass participation of young people in them, regardless of their impact on the improvement of labour skills of the trainees and the possibility of finding work. This is due not only to the restriction of indirect cost (namely, the opportunity cost, that of the loss of wages) owing the recession and the accompanying unemployment, but also to the fact that this type of training is subsidised. In other words, it creates incomes for the trainees, who are motivated to take part regardless of

whether they believe that their participation will help them in their vocational reinstatement or to obtain their first job (Dedoussopoulos, 1995).

By contrast, the advocates of matching theory claim that under-education will result in an increased necessity for more training. However, it is not yet clear whether training can make up for inadequacies in formal education (substitution) or if it can just add to variations in human capital (complementarity) that are already present. It could be the case that it is only the features of the job (level and kind of job) in which the substitution aspects of training are to be found, and that it is only in those aspects of formal education (level and breadth) that the complementarity nature of training is obvious (van Smoorenburg and van der Velden, 2000).

Regardless of their different approaches to training and their contributions in understanding the incentives and behaviours of employers, employees and job seekers, it is questionable if micro-level theories can be universally applicable across different political economies for explaining persistent unemployment of trained or well educated job seekers. Indeed, one can seriously question to what extent, for example, human capital theory is applicable to political economies that are not high-skilled ones, with no well developed vocational training structures, as is the case for Greece and to some extent, other Southern European economies. To investigate this matter further, in the next two subsections relevant academic work and policy documents from the period under investigation as well as later, where appropriate, are discussed.

4.2.3 Mismatch and skills shortages

Despite the extensive literature on job-hunting by the unemployed and the length of periods of unemployment in the context of matching, the other side of the coin, i.e. the taking up of free jobs, has received scant attention. The dearth of studies on the nature of vacancies is due to the fact that it is not usual for detailed information about them to be systematically gathered and it is normally one-off datasets that form the basis of the few existing studies (see Manning, 1999 and for more information on labour market search models see for example Rogerson *et al.*, 2004 and Beauchemin, 2008). The majority of vacancy studies have concentrated on the results of the hiring process measured according to the duration of vacancies (e.g. Beaumont, 1978; Roper, 1988; van Ours, 1989; van Ours and Ridder, 1992, 1993), vacancy rates (Holzer, 1994) or the employers' inputs into the hiring process (Barron

and Bishop, 1985; Barron *et al.*, 1985). A number of papers appeared (e.g. van Ours and Ridder, 1993), on the determinants of the number of job applicants that dealt with such matters as the significance put on the process of filling vacancies, the determinants of the quantity and quality of those applying for a job, the number of interviews and offers preferred, as well as the manner used by employers to choose workers from the available job applicants. Generally, however, not much econometric evidence on these topics is available for the period under study (Manning, 1999) and that which is, is rather inconclusive (see Fougere and Pouget, 2003; Forth and Mason, 2004).

The process by which heterogeneous workers are matched to heterogeneous positions, i.e. job matching, has received attention in research on labour turnover and wage growth (e.g. Jovanovic, 1979a, 1979b; Harris and Weiss, 1984; Mortensen, 1984; Topel, 1986), occupational choice (e.g. Viscusi, 1979; Miller, 1984), unemployment (e.g. Jovanovic, 1984; Gottschalk and Maloney, 1985), internal labour markets (e.g. Barron and Loewenstein, 1985), and worker productivity (e.g. Dagsvik *et al.*, 1985). Traditional models of mismatch unemployment tended to be based on what is called ‘structural mismatch’. They were usually centred on supply-side elements and mainly concentrated on structural mismatch factors, focusing on spheres like skill shortages, wage demands in particular markets, inter-regional spatial mismatch and the means of communication favoured by job hunters looking for work (Holzer, 1988; Layard *et al.*, 1994). The results, however, have been inconsistent. For example, Shimer (2005) discovered that the matching model only explained about 10% of the volatility in vacancies and unemployment. Earlier, Adams *et al.* (2000) suggested that it was not just traditional ‘structural’ or ‘skill mismatch’ between local labour markets that causes job vacancies in a high unemployment situation, but also, that job-hunters and employers have different requirements. Moreover, information between the two is unbalanced, thus leading to ‘frictional mismatch’ within local labour markets. Hence, it is possible to view skill shortages as one aspect of broader recruiting problems.

What is meant by a skills shortage is still a matter for debate and to some extent surrounded by a large amount of confusion. A classic old definition from the British Government’s Training Agency, defined the existence of a “skills shortage” as being “when there are not enough people available with the skills needed to do the jobs which need to be done” (Training Agency, 1990, p.29). That is, under this lens a skills shortage refers to the situation where it is hard to find workers with appropriate skills. However, it could also mean that a company’s existing staff lack the skills necessary to do their job properly. In general, what employers understand by a skills shortage may be different and indeed, earlier research

had conflicting views about the meaning of skills and also how a shortage could be defined (Green *et al.*, 1998). Frequently, the skills referred to by employers are basically technical ones, defined as the capability to carry out certain jobs or to learn some techniques, of either a manual or cognitive nature. It has been noted by Oliver and Turton (1982), however, that when employers talk about skills (in terms of skills shortages) they also refer to a number of qualities like reliability, not being dependent on supervision and permanence of employment. Extant research generally concurs that qualities related to conduct as well as technical abilities are part of the package of skills that employers are searching for (Bosworth *et al.*, 1992).

Problems regarding the filling of vacancies have invariably been used to define shortages in empirical studies, both implicitly and explicitly. As a consequence, Green *et al.* (1998) pointed out that difficulties with existing company employees' skills or their abilities have not been included in skills shortages assessment in any of these studies. In this regard, Haskel and Martin (1993a) considered the CBI (Confederation of British Industry) skills shortage indicator to be a proxy for the mean length of time of skilled labour vacancies, and Stevens (1994) made use of the same indicator as a proxy for the relatively insignificant cost of hiring skilled labour. Jones and Goss (1991), Bosworth (1993), and Haskel and Martin (1993b) counted skills shortages explicitly as vacancies that are difficult to fill in various ways.

4.2.4 Mismatch and over-education

It is Freeman's contention in the original work on over-education in 1976, that over-education is a temporary condition resulting from competition in the labour market, however, UK evidence challenges this (Chevalier and Lindley, 2007). Despite a great deal of American and European empirical evidence now being available on the subject of over-education, it has been argued that "a solid relation [regarding the over-education / under-education literature] with a formal theory of the labour market is lacking" (Hartog, 1997). A further difficulty is the confusion between the term 'over-education' specifically, and very different notions like 'qualification inflation' or 'credentialism' (Green *et al.*, 1999). According to Chevalier and Lindley (2007), over-education can be defined as not being in a graduate job when a person has a degree, thus resulting in skill mismatching.

Generally, skill mismatches are measured in four ways in the literature (Groot and van den Brink, 2000), which can be divided into subjective and objective methods. Workers' reports on the extent to which skills are used in their individual cases form the basis of the two 'subjective' metrics: workers are either requested to state if they are over-educated or under-educated for their job, or to report the lowest level of education demanded from a new employee for the role. In this case, the individual worker's level of education is compared with the level demanded, as stated in his/her report, and a conclusion is reached as to the actual position of the worker in terms of over-education. There are also two kinds of objective definition. Regarding one, the mean level of education in the worker's job is compared with the years spent in education to determine whether over-education is present, whilst for the other, the level demanded for the job is compared to the worker's individual level of education. There are disadvantages and limitations with all of these measures (see Clogg and Shockey, 1984; Halaby, 1994; Dolton and Vignoles, 2000; and Hartog, 2000). Nevertheless, when Hartog (1997) extensively surveyed the literature he found signs that over-education has grown in frequency over the years in Europe, i.e. especially since the 1970s, whilst there has been a lesser occurrence of under-education. In general, the vast majority of studies during the period 1990-2000 have indicated greater prevalence of over-education rather than under-education (Green *et al.*, 1999).

According to human capital theory, over-education is not a permanent occurrence and is the result of a poor match between employer and employee. This appears to go against the empirical evidence, which suggests there is always a large percentage of the labour force that is over-educated (Green *et al.*, 1999). It is possible that there is always over-education in the labour market generally, but for each individual it is short lived. However, it could also be the case that an individual chooses to be over-educated for a position, temporarily, so as to remain in touch with the labour market in order to find a better job in the future. From this point of view, over-education could be thought of as being a sort of human capital investment (Green *et al.*, 1999).

A different interpretation of over-education is offered by matching theory. Under this lens, there might be a poor match between employer and employee causing over-education, often resulting in the worker looking for a better match elsewhere. The fact that both over- and under-education are to be found lends credence to the opinion that they are both indications of the occurrence of poor matching in the labour market. In this instance, or if the substitution hypothesis (by which employment is not actually greater) is right, over-education would be just short lived for the worker concerned (Green *et al.*, 1999). It is necessary to

discover whether over-education is temporary or not, for it does not constitute a social problem if it is. That is, it is an instability condition related to age, mobility and/or training. However, when persistent over-education occurs, according to Patrinos (1997), the focus needs to be shifted away from the individual and his/her characteristics towards institutions and policies regarding employment and vocational training across the focal society and its political economy.

Traditionally, one of the key causes of graduate unemployment was considered to be a lack of economic growth. A further cause of growing graduate unemployment is the higher percentage of graduates in the labour force, especially as far as women are concerned. Graduate unemployment also increases when a significant number of employers choose non graduates over graduates and train them on the job, where this is appropriate, because they can pay them lower wages. In some developing countries, a high percentage of graduates have claimed that another cause of such unemployment was the failure of institutions of higher education and employers to communicate with each other as well as an absence of information concerning the places where jobs were available and the way in which they could be obtained. Qualifications achieved by examination results were found not to be related to employers' requirements and, despite elevating the expectations of graduates, failed to provide them with a good job (Sanyal, 1987). The supply of educational human capital is not a uniform commodity, for the skills and productivity of graduates (and school leavers) vary considerably. That is, the quality and kind of education gained in higher education (grade, place of study, subject matter studied) will affect the skill levels and hence, employer willingness to take on a job applicant. For instance, it has been shown in the UK that there has been a great deal of variation in graduate employability (chances of having permanent employment) across higher education institutions (Johnes *et al.*, 1987).

It is not only the kind and quality of education gained that characterizes someone as over-educated, for this might depend on their 'natural' ability. That is, it could be the case that the over-educated are not good workers as they do not possess the skills needed to do a job equal to their degree of education. If this view holds, then there is no such thing as an 'over-educated' worker, because the jobs they obtain are compatible with their real (lower) abilities (Green *et al.*, 1999). Consistent with this, Dolton and Vignoles (2000) pointed to evidence regarding UK students graduating from higher education in 1980, which indicates that despite the fact that over-educated workers could have received more education than they needed at work, they might not actually have been over-educated as their education was of a poorer quality or not the right kind.

Since the late 1980s, the increased numbers of graduates in the UK has led to their employability being diminished for a number of reasons. In terms of supply, these graduates could be of reduced ‘value’ from the employers’ perspective as (i) funding decreases have led to over-crowding and other quality matters might have meant that some graduates have not acquired suitable skills at university; (ii) universities might have created courses lacking content/useful skills in order to attract more students; and (iii) universities could have accepted students of lower ability to fill extra places. Given newer graduates are probably of less ‘value’ than those in work for a significant time and increased instability in the labour market, the percentage of over-educated graduates has risen enormously and their situation has worsened (Chevalier and Lindley, 2006). In the next section, drawing on evidence provide in a number of studies, I discuss the impact of training courses at the individual participant level in the European countries.

4.3 Impact of training at the micro-level

Causal statistical studies are divided into two main categories: experimental and observational. Both categories involve observation of the effect of differences of an explanatory variable (or variables) on the behaviour of a dependent variable and it is the method that differs between the two. In an experimental study, measurements of the system being examined are taken and then manipulated. Subsequently, further measurements are taken using the identical procedure to find out if the manipulation has altered them. An observational study, on the other hand, does not make use of experimental handling, but rather, amasses data and then studies the main effects of the independent variables on the dependent variable as well as the interaction effects amongst the former. In quasi-experimental design, groups on which a variable is tested are not chosen by random sampling.

4.3.1 European training evaluations based on cross-sectional data

The early European evaluation studies were mostly characterized by the fact that research was not based on longitudinal and/or non-experimental data, but instead on cross-sectional and/or (quasi) experimental data (see *Table 4-1* in appendix). Experimental evaluations were common at the time in the U.S., but this was not the case in Europe

(Bjorklund and Regner, 1996). Cross-sectional data can be extracted from surveys conducted at a given time over a certain time period (Westergaard-Nielsen, 1989).

The micro-level studies on ALMP outcomes were summed up by the OECD (1993) and Fay (1996) as frequently delivering weak returns regarding the training of the unemployed. In the majority of cases, the most significant force decreasing the return was deadweight, i.e. a trained job-hunter is taken on but would have been employed in any case without training (Jackman *et al.*, 1996). Heckman *et al.* (1999) and Stanley *et al.* (1999) concluded that if there were any positive treatment effects concerning ALMP effectiveness in the U.S. then they were at best negligible. By contrast, looking at the evaluations summed up in *Table 4-1*, it can be observed that some European evaluations showed substantial statistically significant impacts of training on employment figures. This was found to be directly so in UK studies by Main and Raffe (1983), Main (1985, 1991), Main and Shelly (1990), and O'Higgins (1994), and indirectly in a Dutch study by Ridder (1986) as well as a French one by Bonnal *et al.* (1997). In fact, in a number of these studies the estimated employment effects were over 10 percentage points in terms of employment probability at the participant level. Other studies, however, like Danish and Norwegian evaluations, Swedish studies by Bjorklund (1993a) and Harkman *et al.* (1996), and UK ones by Dolton *et al.* (1992, 1994) showed significantly reduced and on occasion even negative effects on employment resulting from the training programmes outlined in *Table 4-1*. Concerning Greece, according to Rodokanakis and Vlachos (2012), only the region of Eastern Macedonia and Thrace in 2000 reported a positive impact of training on the job prospects of individuals, specifically, regarding the variables apprenticeship and CVT (those who undertook these were less likely to be unemployed than non-trainees).

In a number of nations, training for unemployed adults (together with training for those at risk) comprised the biggest part of active programmes, being provided by public manpower employment services as the main alternative to unemployment (OECD, 1993). A number of these initiatives did seem to have a positive outcome, although the bigger picture is less conclusive (see *Table 4-2* in appendix). A German study by Hofbauer and Dadzio (1987) on vocational training for the unemployed demonstrated that two years after training had been completed, 56% of those involved had jobs, whilst in the comparison group who received no training the figure was 41%. Moreover, it was noted that a higher net impact was achieved when training was for a longer duration and this applied to the trainees who began in a weaker situation as well as to those in a stronger one. Bollens and Hooge (1996) found in Belgium that one year after training had finished about 75% of unemployed people taking

part had jobs, as opposed to 45% in an untrained group and three years after the training this dissimilarity remained. A pre-vocational training measure, targeting the low-skilled long-term unemployed, showed percentages of 49% and 27%, respectively, for participants and non-participants in terms of obtaining jobs. When these two groups were separated into sub-groups, it emerged that net effectiveness went down with the level of education and up with the length of time of unemployment (Nicaise and Bollens, 1998).

4.3.2 OECD studies based on cross-sectional data

Among the ALMPs, the greatest advance has been in the evaluation of training programmes, with the majority of the research being focused on the impact of training on future remuneration or on the likelihood of re-employment. The impact on the duration of the employment period subsequent to training has also been examined in several studies (e.g. Kaitz, 1979; Ridder, 1986; Card and Sullivan, 1988; Ham and Lalonde, 1991; Gritz, 1993; Bonnal *et al.*, 1994; Torp, 1994; Zweimuller and Winter-Ebmer, 1996), for it is considered important to separate the length of continuous employment from the duration of job tenure (Cockx *et al.*, 1998).

To summarise, a large number of different sorts of training programmes and their impacts were studied by the OECD (1993), amongst others, using cross-sectional data. In general, it was found that those aimed at a few people whose requirements were easily recognizable and with a high cost per person, frequently seemed to succeed in improving the remuneration and job possibilities of participants. This might account for the fact that training programmes in Norway, which were not that large, seemed to have succeeded much more effectively than in Sweden where the numbers involved were greater (Calmfors, 1995b). In contrast, wider programmes involving more participants at quite a low cost per person normally appeared to make almost no difference (if any) to the prospects of those involved (Jackman, 1995). In view of the growing differences in remuneration and employment possibilities between workers with skills and those without, it would seem reasonable to suppose that training schemes would give a high return to those involved in them. However, hardly any support for this opinion can be found in the micro-level evidence on training programmes for unemployed adults when using cross-sectional data, thus bringing their efficacy into question (Jackman, 1995).

4.3.3 European programme evaluation on training based on longitudinal data

In contrast to the early cross-sectional European evaluation studies cited in subsections 4.1.3 to 4.2.3, later training research involved employing more robust longitudinal data, thereby allowing for the possibility that impact assessments would be more accurate (Kluve and Schmidt, 2002). With longitudinal data repeated recordings are made over a longer period of time of the same people. The studies covered in this subsection examined the same population groups over time, apart from those of Winter-Ebmer (2006) and Cueto and Mato (2009), who used only one reference year in their research, and one study, that of Malmberg-Heimonen and Vuori (2005), where experimental data were used. *Table 4-3* (see in appendix) shows a summary of the results from this kind of research on training for different European nations.

The findings show that the more expensive programmes with a significant amount of training appear to have been the most effective at increasing employment prospects (see Brodaty *et al.*, 2001; van Ours, 2001; Kluve and Schmidt, 2002; Raaum and Torp, 2002; Kluve *et al.*, 2005). However, national studies during the early to mid-2000s did not find positive impacts of training on employment (Gerfin and Lechner, 2000; Regner, 2002). Whilst other studies found that training was more effective than job creation and subsidies for employment in the public sector, which usually did not succeed (Brodaty *et al.*, 2001; Kluve *et al.*, 2005), especially if their main aim was to remove unemployed people from the register (Lechner, 2000). Other studies that found mixed effects of participation in training programmes on employment/unemployment are those of Lechner and Wunsch (2009), Fitzenberger *et al.* (2010), Lechner *et al.* (2011), and McGuinness *et al.* (2014), depending on the section of the population being targeted, but overall they reported a positive linkage.

Concerning the research on training in the 2000s (Larsson, 2002 - on earnings as well; Stenberg, 2003 - on mobility between branches and on earnings; Weber and Hofer, 2003; Graversen, 2004; Hujer *et al.*, 2004; Rosholm and Svarer, 2004; Centeno *et al.*, 2005 - on earnings as well; Hogelund and Holm, 2005; Aakvik and Dahl, 2006; Meadows and Metcalf, 2008; Rosholm and Skipper, 2009), no positive impact of training on employment probability in European labour markets was found. According to Rosholm and Skipper (2009) training raised the unemployment rate of participants but this effect disappeared over time and this would indicate a locking-in effect, i.e. technical knowledge which is specific to

a particular production process and is not transferable to other processes. Other research (Malmberg-Heimonen and Vuori, 2005; Steiger, 2005; Andren and Andren, 2006 - unobservables slightly increased the effect for those treated; Lechner *et al.*, 2007 - on earnings as well; Cueto and Mato, 2009 - the locking-in effect found regarding trainees suggested decreasing labour mobility; Lechner *et al.*, 2011 - on earnings as well) found that the employment effects of training were mixed, i.e. there were positive and negative results. Also, Raaum *et al.*, 2002; and Andren and Gustafsson, 2004 examined the impact of training only on earnings and the results were also mixed.

Other research on Europe found that training had positive effects on employment probability, although in some cases more for specific age groups, occupational groups or geographical areas (Hujer and Wellner, 2000; Nätti *et al.*, 2000; Richardson and van den Berg, 2001; Hamalainen, 2002; Cockx, 2003; Hamalainen and Ollikainen, 2004 - on earnings as well; Leetmaa and Vork, 2004; Albrecht *et al.*, 2005 - for young men regarding earnings as well, but no impact on income was found; Arellano, 2005 - higher positive effects for women than for men; Cavaco *et al.*, 2005; Fitzenberger and Speckesser, 2005 - more in West Germany than in East Germany; Kluve *et al.*, 2005; Lorentzen and Dahl, 2005 - modest effects and only on earnings; Stenberg, 2005; Winter-Ebmer, 2006 - for men and on earnings as well; Mato and Cueto, 2008 - but no effects on earnings).

In conclusion, the evaluation studies cited above reported minor impacts of European training policies, but on the whole these failed to fulfill the aims of those responsible for designing them. Despite the cross-national figures showing a few positive results from programmes, it is impossible to disregard the more negative ones. The findings suggest that training programmes seem to have had some positive effects on employment and no effects on earnings. Moreover, the effects on the former appear to diminish over time. The negative effects reported by several evaluations can be explained, on the one hand, by a locking-in effect, and on the other by the fact that some participants seemed to enrol in training merely in order to collect unemployment insurance benefits (Cueto and Mato, 2009).

Micro-econometric analyses usually confirm that training had “mixed” results, but nearly always a statistically insignificant impact on the participants’ prospects of employment. The empirical studies based on micro-data have suggested that in general it can be concluded that the impact of ALMPs on the job finding has been somewhat negligible. Many ALMPs have encouraged workers to decrease their search efforts rather than the opposite and this significant disadvantage was a result of the so-called locking-in effect (see for example van Ours, 2004). This was not the only significant effect. An individual

unemployed worker may find something useful, whereas it may not be helpful regarding the total level of unemployment. Crowding out (namely an alleged effect on private sector demand of an increase in public expenditure) might be one explanation for this. Training might help an unemployed person to return to work faster and because another unemployed worker therefore finds a job more slowly the training programme is lacking effectiveness (Boone and van Ours, 2004). On the other hand, macro-economic studies have reached the conclusion that training was the only category of active employment policy that appears to have had a notable positive effect on the overall performance of the labour market (CEC, 2006:145).

4.4 Conclusion to the chapter

During the reference time period of the current study it was (and to some extent still remains) unclear exactly what a skill shortage was. Micro-level studies provided contradictory empirical findings and there was expressed confusion regarding the concept of skills and of shortage. Shortages have always been taken to mean problems filling vacancies, either implicitly or explicitly, in empirical work. It is important to emphasize that what is claimed here is that training mismatch is one cause of unemployment and hence, supply and demand for labour mismatch cannot account for it alone.

A significant number of researchers making use of accessible data and studies to examine the potential impacts of training on employment have been referred to. In spite of being restricted to only a small number of nations, micro-level studies of training effects indicate that some programmes have managed to noticeably better employment prospects for those taking part. On the other hand, the findings include a number of programmes which appear to have had almost no effect. Programmes with fairly specific targeting have, on the whole, achieved positive results and this may be due to the fact that these usually took individual requirements into account. By contrast programmes that were widely targeted appeared to have little impact.

The next chapter (5), presents the micro-econometric work of the thesis. It involves one logit model for all three areas under examination (Central Macedonia, Attica and the rest of Greece) based on micro-data from the Greek LFS for the years 1992, 1994 and 2000. In addition to investigating the main effects of the variables, interaction effects analysis and collinearity statistics are provided.

CHAPTER 5: MICRO-LEVEL OF ANALYSIS II

5.1 Introduction

In this chapter I use individual anonymized records (micro-data) of the LFS for the logit model for the three areas which I study econometrically, namely Central Macedonia, Attica and the rest of Greece. It is an established methodology and essentially I explore econometrically the labour market of the entire country in the 1990s. The focus is on the micro-level of analysis that deals with the research question at micro-level, namely “what was the impact of the training programmes at the participant level”? This question was operationalized by empirically testing the following sub-questions:

- Did the social and demographic characteristics of an individual in Greece affect the probability of finding employment during the period under investigation?
- Did the introduction of training courses funded by the EU have a statistically significant effect on the probability of finding employment?
- Did university graduates in Greece face greater difficulties in finding a job compared to those less educated (as relevant literature and aggregate statistics have suggested)?

5.2 Econometric analysis for Greece

5.2.1 *Multi-collinearity statistics for Greece*

Collinearity pertains to their being a linear association between two explanatory variables. Multi-collinearity refers to a situation in which two or more explanatory variables in a multiple regression model are highly linearly correlated, which means that one can be linearly predicted from the others with a non-trivial degree of accuracy. *Table 5-2* presents the multi-collinearity statistics through the variance inflation factor (VIF) that estimates how much the variance of a coefficient is “inflated” because of its dependence upon other predictors (the analysis of the variables used in the model is presented in *Table 5-1 in the appendix*). Although researchers differ on how high the VIF has to be to constitute a problem, in this analysis I am concerned when it is greater than 10 (O’Brien, 2007); the variance of each variable is less than the 10 threshold, so the *Table 5-2* indicates that there is no multi-collinearity among the variables. Accordingly, since $VIF = 1/\text{tolerance}$, a tolerance

of less than 0.1 indicates a multi-collinearity problem. VIF and tolerance show essentially the same thing, however, the former indicates with a higher degree of accuracy how one variable is differentiated in comparison to another.

Table 5.2 – Multi-collinearity statistics for the variables in the model testing employment probability in Greece

Variables	Tolerance	VIF
Gender	0.978	1.022
Marital status	0.670	1.493
Aged 15-24	0.684	1.463
Aged 25-34	0.650	1.538
Aged 35-44	0.739	1.353
Aged 45-64	0.336	2.973
Training	0.891	1.122
Citizenship	0.984	1.017
Athens area	0.164	6.094
Thessaloniki area	0.275	3.637
Rest of urban areas	0.218	4.594
Semi-urban areas	0.331	3.024
Rural areas	0.175	5.717
MSc or PhD holders	0.985	1.016
University graduates	0.779	1.284
TEI graduates	0.760	1.315
Twelve years of schooling	0.651	1.537
Nine years compulsory education	0.810	1.234
Primary school graduates and below	0.291	3.438
Rest of Greece	0.180	5.569
Attica	0.199	5.024
Central Macedonia	0.226	4.428
Year 1992	0.840	1.190
Year 1994	0.740	1.351
Year 2000	0.625	1.600

According to the *Table 5-2*, there is no multi-collinearity among the variables of the logit model for Greece.

5.2.2 Analysis of the main effects of the logit model

The *Table 5-3* presents the results, namely, the estimated coefficients (B), the standard errors (S.E.) and the p values for each explanatory variable in the logistic regression for unemployment in Greece for 1992, 1994 and 2000, pooling together all the

available data into one database. *Table 5-3* presents the main effects. Column “Sig.” (level of statistical significance or p value) provides the coefficients for the variables and those above 0.05 are not statistically significant. In *Table 5-3*, b_k is the log of the odds, whereas $\text{Exp}(b_k)$ is the odds ratio.

If $\text{exp}(\mathbf{B}) > 1 \Rightarrow$ more likely for someone to be unemployed.

If $\text{exp}(\mathbf{B}) \approx 1 \Rightarrow$ same probabilities for someone to be unemployed or not to be unemployed.

If $\text{exp}(\mathbf{B}) < 1 \Rightarrow$ less likely for someone to be unemployed.

The descriptive statistics of the logit model are summarised in *Table 5-8* (see appendix). After taking into account missing records, restricting the sample by age (15-64 years old) and removing the non-active population, *Table 5-9* (see in appendix) shows the numbers of records eligible for analysis in the LFS samples (covering the spring and early summer, namely, from the 14th to 26th week of the year) of both NUTS-2 regions under examination, and the rest of Greece as well, for 1992, 1994 and 2000 together. The reason I chose these years is, as explained in chapter 3, because 1992 was the first year that the Greek LFS questionnaire had detailed questions on training, 1994 was the first year after the end of the CSF-1, whereas 2000 was one year after the end of the CSF-2. Further, *Table 5-10* (see in appendix) shows the numbers of records eligible for analysis in the LFS samples for each type of vocational training in each focal year and for each area under examination.

Females, non-married individuals, people in the age group 15-24 years old, people who lived either in the Athens or Thessaloniki areas, the other urban areas or semi-urban areas were more likely to be unemployed than males, married people, people aged between 25 to 64 and those in rural areas. University graduates had more chances of finding a job compared to all other educational categories apart from MSc or PhD holders (these differences were not found significant). These results are in contrast to some studies which have asserted the opposite. The variable “immigrant status” was found to be statistically non-significant.

Most importantly, the participation in vocational training programmes did not seem to reduce the odds of unemployment, that is, training was found to be statistically non-significant during the first and the second CSFs. This means that the results of training variables are not compatible with the human capital theory. In other words, the more trained a person was did not affect his chances of finding a job, in Greece, during the time period of CSFs 1 and 2. The same results on training were found for other Greek regions and the entire country as well (see Livanos, 2007 and 2009a; Rodokanakis, 2009; Rodokanakis and

Tryfonidis, 2009; Rodokanakis, 2010a, 2010b and 2011; Rodokanakis and Vlachos, 2013a and 2013b). The exceptions are the findings for the region of Eastern Macedonia and Thrace in 2000 concerning the training variables “apprenticeship” and “CVT” (less likely to be unemployed than the non-trainees - see Rodokanakis and Vlachos, 2012).

Whether or not someone lived in Central Macedonia in 1992, 1994 or 2000 was statistically non-significant. By contrast, people who lived in the region of Attica were more likely to be unemployed than those living in the rest of Greece. Both of the years 1994 and 2000 were found to be statistically non-significant, i.e. the variable “time” did not influence the probability of being unemployed.

Table 5.3 Results (main effects) for Greece, 1992, 1994 and 2000 (parameter estimates b_k , standard errors (s.e.), p-values, exponent of b_k)

Variables	b_k	S.E.	Sig.	Exp (b_k)
Gender	0.915	0.019	0.000	2.497
Marital status	-0.398	0.039	0.000	0.671
Aged 15-24	ref.	ref.	ref.	ref.
Aged 25-34	-1.023	0.024	0.000	0.359
Aged 35-44	-1.706	0.029	0.000	0.182
Aged 45-64	-1.977	0.031	0.000	0.139
University graduates	ref.	ref.	ref.	ref.
MSc or PhD holders	0.110	0.183	0.546	1.116
TEI graduates	0.371	0.046	0.000	1.449
12 years of schooling	0.601	0.038	0.000	1.824
9 years compulsory education	0.550	0.044	0.000	1.734
Primary school graduates and below	0.518	0.040	0.000	1.679
Rest of Greece	ref.	ref.	ref.	ref.
Attica	0.083	0.041	0.046	1.086
Central Macedonia	-0.075	0.041	0.064	0.927
Rural areas	ref.	ref.	ref.	ref.
Athens area	0.738	0.050	0.000	2.091
Thessaloniki area	0.787	0.054	0.000	2.196
Rest of urban areas	0.899	0.030	0.000	2.457
Semi-urban areas	0.518	0.037	0.000	1.679
Non-participation in training course(s)	ref.	ref.	ref.	ref.
Training	-0.013	0.052	0.808	0.987
Citizenship	0.077	0.058	0.179	1.080
Year 1992	ref.	ref.	ref.	ref.
Year 1994	0.025	0.022	0.266	1.025
Year 2000	0.055	0.033	0.096	1.056
Constant	-2.262	0.062	0.000	0.104

Main Effects (model summary)

146,815 cases selected		
<i>-2 Log likelihood</i>	<i>Cox & Snell R²</i>	<i>Nagelkerke R²</i>
80810.622	0.082	0.174
Hosmer and Lemeshow Test		
<i>Chi-square</i>	<i>df</i>	<i>Sig.</i>
89.197	8	0.000
Overall percentage of classification table: 90.2		

Hosmer and Lemeshow's (HL) test in logit models is an approximation. In binary models there is a problem with sparseness and most tests are not valid, thus it is not a problem that the HL test rejects the model. In logistic regression the use of goodness-of-fit (GOF) tests is not so frequent. Given the sample size is so big even small deviations from the theoretical model can lead to its rejection. For both linear and logistic regression, it is possible to have a low R^2 and still have a model that is correctly specified in every respect. Alternatively, there can be a very high R^2 and yet the model is grossly inconsistent with the data (Allison, 2013).

In contrast, GOF tests help us decide whether our model is correctly specified and they produce p -values, which if low (below 0.05), leads to the rejection of the model. The HL test for logistic regression is widely used to answer the question "How well does my model fit the data?" Allison (2013) has found it to be unsatisfactory for several reasons. The author wrote that one would hope that adding a statistically significant interaction or non-linearity to a model would improve its fit, as judged by the HL test, but often this does not happen as the reverse can also quite commonly occur. Quite frequently, adding a non-significant interaction or non-linearity to a model will substantially improve the HL fit. The large sample size issue is a potential problem with any GOF test. With large sample sizes, even trivial departures from the model specification are likely to show up as statistically significant. Actually, the simulation results suggest that the HL test has relatively low power for detecting certain kinds of model specification, especially interactions (Allison, 2013).

There have also seen other criticisms that the HL test is too sensitive to large sample sizes. See for instance in Feudtner *et al.* (2009) it is stated that: "The Hosmer-Lemeshow test detected a statistically significant degree of miscalibration in both models, due to the extremely large sample size of the models, as the differences between the observed and expected values within each group are relatively small". Also, the HL test fails most of the time in very large datasets

(<http://www.statisticalhorizons.com/hosmer-lemeshow>, March 28, 2013). Furthermore, in Marcin and Romano (2007) it is contended that: “A significant HL test does not necessarily mean that a predictive model is not useful or suspect” (p. 2213). In addition, in the STATA LIST there is the comment: “It follows that with large sample sizes any discrepancy between the model and the data will be magnified, resulting in small p-values for a GOF test” (<http://www.stata.com/statalist/archive/2006-09/msg00226.html>).

5.2.3 Interaction effects among variables

For the 1992, 1994 and 2000 samples together, I fitted the interaction effects between education and gender, age groups and education, age groups and areas, age groups and years, gender and years, as well as education and residence location, years and education, and years and areas. Also, I fitted the interaction effects between training and age groups, training and level of education, training and geographical areas or residence location, and training and years. The interaction effect results in all the *Tables 5-4 to 5-7* start immediately after the line “year 2000”.

In all tables of the interaction effects analysis, as with the main effects, the variable “MSc or PhD holders” was statistically non-significant. According to *Table 5-4*, females when compared to males, who were both TEI graduates, had lower probabilities of being employed in comparison to the case where both males and females were University graduates. In addition, females who were TEI graduates were 1.46 times less likely to be employed than males and this was similar for the remaining three educational categories in terms of gender.

Also, concerning age group and educational category, someone who was between 15 and 24 years old in the four educational categories was less likely to be unemployed in relation to those in this age group who were university graduates. The same applied to those aged 25-34. Moreover, people in the age group 45-64 were less likely to be employed than those in the same age group who were university graduates. In addition, in Attica, people aged 35-64 were more likely to be unemployed than those between 15 and 24 in the same region. Furthermore, someone aged 15-44 in all residential locations (Athens area, Thessaloniki area, semi-urban areas and rest of the urban areas) had less probability of being unemployed when compared to those in the same age group in rural areas; however, the opposite was the case in the age group 45-64. Moreover, females, when compared to males,

had a lower probability of being unemployed in 1994 than in 1992. Age groups 15-24 and 25-34 in 2000 were less likely to be unemployed than the same age groups in 1992. In contrast, people in the age groups 35-44 and 45-64 were less likely to be employed than those in the same age groups in 1992.

Table 5.4

Interactions with education and gender, age groups and education, age groups and areas, age groups and years, gender and years (variables in the equation)

Variables	b_k	S.E.	Sig.	Exp (b_k)
Gender	0.360	0.079	0.000	1.434
Marital status	-0.746	0.049	0.000	0.474
Aged 15-24	ref.	ref.	ref.	ref.
Aged 25-34	-1.732	0.130	0.000	0.177
Aged 35-44	-3.762	0.159	0.000	0.023
Aged 45-64	-4.723	0.173	0.000	0.009
University graduates	ref.	ref.	ref.	ref.
MSc or PhD holders	-0.215	0.597	0.719	0.807
TEI graduates	0.787	0.154	0.000	2.198
12 years of schooling	0.734	0.122	0.000	2.083
9 years compulsory education	0.793	0.143	0.000	2.209
Primary school graduates and below	0.959	0.115	0.000	2.610
Rest of Greece	ref.	ref.	ref.	ref.
Attica	-0.024	0.071	0.733	0.976
Central Macedonia	-0.089	0.071	0.210	0.915
Athens area	1.616	0.123	0.000	5.033
Thessaloniki area	1.919	0.137	0.000	6.814
Rest of urban areas	1.767	0.082	0.000	5.853
Semi-urban areas	1.137	0.096	0.000	3.118
Rural areas	ref.	ref.	ref.	ref.
Training	0.010	0.052	0.845	1.010
Citizenship	0.166	0.057	0.004	1.180
Year 1992	ref.	ref.	ref.	ref.
Year 1994	0.107	0.045	0.016	1.113
Year 2000	0.244	0.052	0.000	1.276
Gender and University graduates	ref.	ref.	ref.	ref.
Gender and MSc or PhD holders	-0.286	0.385	0.457	0.751
Gender and TEI graduates	0.381	0.095	0.000	1.464
Gender and twelve years of schooling	0.559	0.078	0.000	1.748
Gender and nine years compulsory education	0.902	0.089	0.000	2.465
Gender and primary school graduates and below	0.681	0.079	0.000	1.976
Aged 15-24 and University graduates	ref.	ref.	ref.	ref.
Aged 15-24 and MSc or PhD holders	-0.976	1.241	0.431	0.377

Aged 15-24 and TEI graduates	-1.130	0.187	0.000	0.323
Aged 15-24 and twelve years of schooling	-0.905	0.156	0.000	0.404
Aged 15-24 and nine years compulsory education	-1.487	0.174	0.000	0.226
Aged 15-24 and primary school graduates and below	-1.929	0.155	0.000	0.145
Aged 25-34 and University graduates	ref.	ref.	ref.	ref.
Aged 25-34 and MSc or PhD holders	0.510	0.638	0.424	1.666
Aged 25-34 and TEI graduates	-0.784	0.163	0.000	0.457
Aged 25-34 and twelve years of schooling	-0.748	0.131	0.000	0.473
Aged 25-34 and nine years compulsory education	-0.931	0.154	0.000	0.394
Aged 25-34 and primary school graduates and below	-1.063	0.128	0.000	0.345
Aged 35-44 and University graduates	ref.	ref.	ref.	ref.
Aged 35-44 and MSc or PhD holders	0.651	0.717	0.364	1.918
Aged 35-44 and TEI graduates	-0.357	0.193	0.065	0.700
Aged 35-44 and twelve years of schooling	-0.071	0.153	0.645	0.932
Aged 35-44 and nine years compulsory education	0.047	0.177	0.791	1.048
Aged 35-44 and primary school graduates and below	0.052	0.146	0.723	1.053
Aged 45-64 and University graduates	ref.	ref.	ref.	ref.
Aged 45-64 and MSc or PhD holders	-0.329	0.624	0.599	0.720
Aged 45-64 and TEI graduates	0.652	0.157	0.000	1.919
Aged 45-64 and twelve years of schooling	0.431	0.126	0.001	1.539
Aged 45-64 and nine years compulsory education	0.717	0.146	0.000	2.049
Aged 45-64 and primary school graduates and below	0.850	0.120	0.000	2.339
Aged 15-24 and Attica	ref.	ref.	ref.	ref.
Aged 25-34 and Attica	-0.082	0.104	0.433	0.922
Aged 35-44 and Attica	0.265	0.119	0.026	1.303
Aged 45-64 and Attica	0.481	0.121	0.000	1.618
Aged 15-24 and Central Macedonia	ref.	ref.	ref.	ref.
Aged 25-34 and Central Macedonia	0.031	0.101	0.759	1.031
Aged 35-44 and Central Macedonia	0.067	0.120	0.578	1.069
Aged 45-64 and Central Macedonia	-0.012	0.126	0.927	0.989
Aged 15-24 and rural areas	ref.	ref.	ref.	ref.
Aged 15-24 and Athens area	-1.329	0.149	0.000	0.265
Aged 15-24 and Thessaloniki area	-1.650	0.166	0.000	0.192
Aged 15-24 and rest of urban areas	-1.245	0.096	0.000	0.288
Aged 15-24 and semi-urban areas	-0.903	0.115	0.000	0.405
Aged 25-34 and rural areas	ref.	ref.	ref.	ref.
Aged 25-34 and Athens area	-0.988	0.153	0.000	0.373
Aged 25-34 and Thessaloniki area	-1.331	0.166	0.000	0.264
Aged 25-34 and rest of urban areas	-1.054	0.099	0.000	0.348
Aged 25-34 and semi-urban areas	-0.715	0.118	0.000	0.489
Aged 35-44 and rural areas	ref.	ref.	ref.	ref.
Aged 35-44 and Athens area	-0.667	0.172	0.000	0.513
Aged 35-44 and Thessaloniki area	-0.930	0.190	0.000	0.395
Aged 35-44 and rest of urban areas	-0.594	0.113	0.000	0.552
Aged 35-44 and semi-urban areas	-0.454	0.134	0.001	0.635

Aged 45-64 and rural areas	ref.	ref.	ref.	ref.
Aged 45-64 and Athens area	1.506	0.086	0.000	4.509
Aged 45-64 and Thessaloniki area	1.324	0.112	0.000	3.758
Aged 45-64 and the rest of urban areas	1.097	0.088	0.000	2.994
Aged 45-64 and semi-urban areas	0.813	0.103	0.000	2.255
Gender and year 1992	ref.	ref.	ref.	ref.
Gender and year 1994	-0.099	0.045	0.028	0.906
Gender and year 2000	0.060	0.052	0.243	1.062
Aged 15-24 and year 1992	ref.	ref.	ref.	ref.
Aged 15-24 and year 1994	-0.060	0.054	0.268	0.942
Aged 15-24 and year 2000	-0.961	0.074	0.000	0.382
Aged 25-34 and year 1992	ref.	ref.	ref.	ref.
Aged 25-34 and year 1994	-0.013	0.055	0.815	0.987
Aged 25-34 and year 2000	-0.331	0.065	0.000	0.718
Aged 35-44 and year 1992	ref.	ref.	ref.	ref.
Aged 35-44 and year 1994	-0.118	0.059	0.046	0.889
Aged 35-44 and year 2000	0.351	0.070	0.000	1.420
Aged 45-64 and year 1992	ref.	ref.	ref.	ref.
Aged 45-64 and year 1994	0.085	0.060	0.157	1.089
Aged 45-64 and year 2000	0.449	0.076	0.000	1.567
Constant	-0.502	0.130	0.000	0.605

Interactions with education and gender (model summary)

146815 cases selected		
<i>-2 Log likelihood</i>	<i>Cox & Snell R²</i>	<i>Nagelkerke R²</i>
79674.874	0.089	0.189
Hosmer and Lemeshow Test		
<i>Chi-square</i>	<i>df</i>	<i>Sig.</i>
77.657	8	0.000
Overall percentage of classification table: 90.3		

According to *Table 5-5*, people aged 25-64 who had participated in vocational training courses were more likely to be unemployed than those 15-24 years old who had also done so. In addition, those who undertook training and were residents of the Thessaloniki area or the rest of the urban areas had more chances of finding a job in relation to people in agrarian areas who also participated in such courses.

Table 5.5**Interactions with training (variables in the equation)**

Variables	b_k	S.E.	Sig.	Exp (b_k)
Gender	0.918	0.019	0.000	2.504
Marital status	-0.421	0.040	0.000	0.657
Aged 15-24	ref.	ref.	ref.	ref.
Aged 25-34	-1.040	0.024	0.000	0.354
Aged 35-44	-1.722	0.030	0.000	0.179
Aged 45-64	-1.996	0.032	0.000	0.136
University graduates	ref.	ref.	ref.	ref.
MSc or PhD holders	0.153	0.183	0.403	1.166
TEI graduates	0.373	0.048	0.000	1.452
12 years of schooling	0.595	0.038	0.000	1.814
9 years compulsory education	0.549	0.045	0.000	1.732
Primary school graduates and below	0.527	0.040	0.000	1.694
Rest of Greece	ref.	ref.	ref.	ref.
Attica	0.090	0.043	0.035	1.094
Central Macedonia	-0.086	0.041	0.038	0.918
Rural areas	ref.	ref.	ref.	ref.
Athens area	0.754	0.051	0.000	2.125
Thessaloniki area	0.813	0.055	0.000	2.256
Rest of urban areas	0.911	0.031	0.000	2.486
Semi-urban areas	0.517	0.038	0.000	1.677
Non-participation in training course(s)	ref.	ref.	ref.	ref.
Training	-0.048	0.399	0.905	0.954
Citizenship	0.072	0.058	0.213	1.074
Year 1992	ref.	ref.	ref.	ref.
Year 1994	0.022	0.022	0.314	1.023
Year 2000	0.051	0.033	0.122	1.053
Gender and training	0.025	0.101	0.806	1.025
Aged 15-24 and training	ref.	ref.	ref.	ref.
Aged 25-34 and training	0.408	0.112	0.000	1.503
Aged 35-44 and training	0.484	0.149	0.001	1.623
Aged 45-64 and training	0.757	0.175	0.000	2.132
University graduates and training	ref.	ref.	ref.	ref.
MSc or PhD holders and training	-18.519	8563,539	0.998	0.000
TEI graduates and training	0.179	0.324	0.580	1.196
Training and twelve years of schooling	0.146	0.325	0.652	1.158
Training and nine years compulsory education	0.005	0.353	0.989	1.005
Training and primary school graduates and below	-0.249	0.411	0.545	0.780
Training and the rest of Greece	ref.	ref.	ref.	ref.
Training and Attica	-0.261	0.197	0.186	0.771
Training and Central Macedonia	0.452	0.250	0.070	1.572
Training and rural areas	ref.	ref.	ref.	ref.

Training and Athens area	-0.422	0.250	0.091	0.656
Training and Thessaloniki area	-0.992	0.305	0.001	0.371
Training and the rest of urban areas	-0.408	0.179	0.022	0.665
Training and semi-urban areas	-0.014	0.216	0.947	0.986
Training and year 1992	ref.	ref.	ref.	ref.
Training and year 1994	0.360	0.212	0.089	1.433
Training and year 2000	0.021	0.183	0.908	1.021
Constant	-2.243	0.062	0.000	0.106

Interactions with training (model summary)

146815 cases selected		
<i>-2 Log likelihood</i>	<i>Cox & Snell R²</i>	<i>Nagelkerke R²</i>
80750.728	0.082	0.175
Hosmer and Lemeshow Test		
<i>Chi-square</i>	<i>df</i>	<i>Sig.</i>
79.478	8	0.000
Overall percentage of classification table: 90.2		

According to *Table 5-6*, those who had been educated up to lyceum graduate level (12 years of schooling) living in the rest of the urban areas and not in rural ones, had a higher probability of being unemployed than university graduates residing in the same areas. This was also the case for those in semi-urban areas and in the Athens area, but in the Thessaloniki area this was so only for people with up to a high-school graduate level of education (nine years compulsory education). University graduates in Attica were less likely to be unemployed than in the rest of Greece. In both Attica and Central Macedonia, TEI, lyceum and high-school graduates were more likely to be employed than their corresponding educational categories in the rest of the country. Only those completing primary school education or below this level in both the NUTS-2 regions under investigation were more likely to be unemployed than the same educational category in the rest of Greece.

Table 5.6**Interactions with education and areas* (variables in the equation)**

Variables	b_k	S.E.	Sig.	Exp (b_k)
Gender	0.938	0.019	0.000	2.554
Marital status	-0.373	0.039	0.000	0.688
Aged 15-24	ref.	ref.	ref.	ref.
Aged 25-34	-1.013	0.024	0.000	0.363
Aged 35-44	-1.706	0.030	0.000	0.182
Aged 45-64	-1.951	0.032	0.000	0.142
University graduates	ref.	ref.	ref.	ref.
MSc or PhD holders	-18.723	14594,110	0.999	0.000
TEI graduates	0.232	0.156	0.136	1.261
12 years of schooling	0.093	0.128	0.468	1.097
9 years compulsory education	-0.396	0.136	0.004	0.673
Primary school graduates and below	-1.089	0.127	0.000	0.337
Rest of Greece	ref.	ref.	ref.	ref.
Attica	0.049	0.042	0.239	1.050
Central Macedonia	-0.065	0.041	0.112	0.937
Rural areas	ref.	ref.	ref.	ref.
Athens area	-0.420	0.138	0.002	0.657
Thessaloniki area	-0.074	0.154	0.631	0.929
Rest of urban areas	-0.318	0.135	0.019	0.727
Semi-urban areas	-0.559	0.172	0.001	0.572
Non-participation in training course(s)	ref.	ref.	ref.	ref.
Training	0.003	0.052	0.949	1.003
Citizenship	0.056	0.058	0.330	1.058
Year 1992	ref.	ref.	ref.	ref.
Year 1994	0.025	0.022	0.267	1.025
Year 2000	0.057	0.033	0.084	1.058
University graduates in Athens area	ref.	ref.	ref.	ref.
MSc or PhD holders in Athens area	18.970	14594,110	0.999	17330000
TEI graduates in Athens area	0.116	0.171	0.496	1.123
Twelve years of schooling in Athens area	0.492	0.140	0.000	1.635
Nine years compulsory education in Athens area	1.187	0.153	0.000	3.277
Primary school graduates and below in Athens area	2.049	0.142	0.000	7.762
University graduates in Thessaloniki area	ref.	ref.	ref.	ref.
MSc or PhD holders in Thessaloniki area	18.777	14594,110	0.999	14280000
TEI graduates in Thessaloniki area	-0.204	0.202	0.314	0.816
Twelve years of schooling in Thessaloniki area	0.157	0.163	0.335	1.170
Nine years compulsory education in Thessaloniki area	0.578	0.189	0.002	1.783
Primary school graduates and below in Thessaloniki area	1.617	0.167	0.000	5.039
University graduates in the rest of urban areas	ref.	ref.	ref.	ref.
MSc or PhD holders in the rest of urban areas	19.015	14594,110	0.999	18110000

TEI graduates in the rest of urban areas	0.206	0.176	0.244	1.228
Twelve years of schooling in the rest of urban areas	0.607	0.144	0.000	1.834
Nine years compulsory education in the rest of urban areas	0.986	0.157	0.000	2.680
Primary school graduates and below in the rest of urban areas	1.905	0.144	0.000	6.721
University graduates in semi-urban areas	ref.	ref.	ref.	ref.
MSc or PhD holders in semi-urban areas	0.442	16746,825	1.000	1.555
TEI graduates in semi-urban areas	0.458	0.221	0.038	1.581
Twelve years of schooling in semi-urban areas	0.635	0.182	0.000	1.886
Nine years compulsory education in semi-urban areas	0.814	0.198	0.000	2.258
Primary school graduates and below in semi-urban areas	1.493	0.181	0.000	4.450
University graduates in the rest of Greece	ref.	ref.	ref.	ref.
University graduates in Attica	-0.640	0.085	0.000	0.527
University graduates in Central Macedonia	0.003	0.109	0.981	1.003
MSc or PhD holders in the rest of Greece	ref.	ref.	ref.	ref.
MSc or PhD holders in Attica	-0.283	0.634	0.656	0.754
MSc or PhD holders in Central Macedonia	0.176	0.762	0.817	1.192
TEI graduates in the rest of Greece	ref.	ref.	ref.	ref.
TEI graduates in Attica	-0.855	0.077	0.000	0.425
TEI graduates in Central Macedonia	-0.389	0.105	0.000	0.678
Twelve years of schooling in the rest of Greece	ref.	ref.	ref.	ref.
Twelve years of schooling in Attica	-0.807	0.050	0.000	0.446
Twelve years of schooling in Central Macedonia	-0.384	0.069	0.000	0.681
Nine years compulsory education in the rest of Greece	ref.	ref.	ref.	ref.
Nine years compulsory education in Attica	-0.395	0.069	0.000	0.674
Nine years compulsory education in Central Macedonia	-0.246	0.095	0.010	0.782
Primary school graduates and below in the rest of Greece	ref.	ref.	ref.	ref.
Primary school graduates and below in Attica	0.395	0.069	0.000	1.485
Primary school graduates and below in Central Macedonia	0.246	0.095	0.010	1.279
Constant	-0.502	0.130	0.000	0.605

*Rural areas are set as reference across all interactions with areas

Interactions with education and areas (model summary)

146815 cases selected		
<i>-2 Log likelihood</i>	<i>Cox & Snell R²</i>	<i>Nagelkerke R²</i>
80031.176	0.087	0.185
Hosmer and Lemeshow Test		
<i>Chi-square</i>	<i>df</i>	<i>Sig.</i>
48.468	8	0.000
Overall percentage of classification table: 90.3		

According to *Table 5-7*, all educational categories (apart from MSc or PhD holders) in 1994 were more likely to be unemployed than university graduates and the same was true for 2000. Also, in 1994, those living in Athens or Thessaloniki were more likely to be unemployed than people in rural areas, whilst the opposite was the case for those living in semi-urban areas in 1994 and 2000, as well as in the rest of the urban areas in 2000. Finally, in 1994 it was more likely that someone was unemployed in Attica than in the rest of Greece. As already mentioned in chapter 3, I also conducted marginal effect analysis, but this did not contribute anything new or different in comparison to the analysis of the main effects and therefore it was omitted from the thesis.

Table 5.7

Interactions with years and education, and with years and areas* (variables in the equation)

Variables	b_k	S.E.	Sig.	Exp (b_k)
Gender	0.92	0.019	0	2.51
Marital status	-0.468	0.041	0	0.626
Aged 15-24	ref.	ref.	ref.	ref.
Aged 25-34	-1.014	0.024	0	0.363
Aged 35-44	-1.691	0.029	0	0.184
Aged 45-64	-1.966	0.032	0	0.14
University graduates	ref.	ref.	ref.	ref.
MSc or PhD holders	-0.332	0.34	0.329	0.717
TEI graduates	0.123	0.079	0.122	1.13
12 years of schooling	0.479	0.065	0	1.614
9 years compulsory education	0.434	0.079	0	1.543
Primary school graduates and below	0.677	0.071	0	1.969
Rest of Greece	ref.	ref.	ref.	ref.
Attica	0.081	0.042	0.052	1.084
Central Macedonia	-0.073	0.041	0.072	0.929
Rural areas	ref.	ref.	ref.	ref.
Athens area	0.605	0.072	0	1.831
Thessaloniki area	0.637	0.084	0	1.892
Rest of urban areas	0.756	0.058	0	2.129
Semi-urban areas	0.444	0.07	0	1.559
Non-participation in training course(s)	ref.	ref.	ref.	ref.
Training	0.096	0.056	0.085	1.101
Citizenship	0.08	0.058	0.166	1.083
Year 1992	ref.	ref.	ref.	ref.

Year 1994	-0.467	0.114	0	0.627
Year 2000	-0.109	0.123	0.377	0.897
Year 1994 and University graduates	ref.	ref.	ref.	ref.
Year 1994 and MSc or PhD holders	-0.313	0.46	0.496	0.731
Year 1994 and TEI graduates	0.407	0.123	0.001	1.502
Year 1994 and twelve years of schooling	0.447	0.102	0	1.563
Year 1994 and nine years compulsory education	0.446	0.115	0	1.563
Year 1994 and primary school graduates and below	0.485	0.105	0	1.624
Year 2000 and University graduates	ref.	ref.	ref.	ref.
Year 2000 and MSc or PhD holders	-0.649	0.436	0.136	0.522
Year 2000 and TEI graduates	-0.059	0.129	0.65	0.943
Year 2000 and twelve years of schooling	0.16	0.108	0.14	1.173
Year 2000 and nine years compulsory education	0.163	0.124	0.188	1.177
Year 2000 and primary school graduates and below	0.53	0.113	0	1.698
Year 1994 and rural areas	ref.	ref.	ref.	ref.
Year 1994 and Athens area	0.17	0.071	0.016	1.186
Year 1994 and Thessaloniki area	0.188	0.096	0.051	1.207
Year 1994 and rest of urban areas	0.044	0.072	0.543	1.045
Year 1994 and semi-urban areas	-0.294	0.087	0.001	0.745
Year 2000 and rural areas	ref.	ref.	ref.	ref.
Year 2000 and Athens area	-0.084	0.08	0.295	0.919
Year 2000 and Thessaloniki area	-0.1	0.105	0.338	0.904
Year 2000 and rest of urban areas	-0.173	0.08	0.03	0.841
Year 2000 and semi-urban areas	-0.275	0.095	0.004	0.759
Year 1994 and the rest of Greece	ref.	ref.	ref.	ref.
Year 1994 and Attica	0.213	0.052	0.000	1.238
Year 1994 and Central Macedonia	0.126	0.069	0.067	1.134
Year 2000 and the rest of Greece	ref.	ref.	ref.	ref.
Year 2000 and Attica	-0.029	0.055	0.601	0.971
Year 2000 and Central Macedonia	0.140	0.073	0.057	1.150
Constant	-1.914	0.103	0	0.147

* Year 1992 is set as reference across all interactions with years

Interactions with years and education, and with years and areas (model summary)

146815 cases selected		
<i>-2 Log likelihood</i>	<i>Cox & Snell R²</i>	<i>Nagelkerke R²</i>
80662.257	0.083	0.176
Hosmer and Lemeshow Test		
<i>Chi-square</i>	<i>df</i>	<i>Sig.</i>
95.057	8	0.000
Overall percentage of classification table: 90.3		

5.3 Conclusion to the chapter

In the main, my econometric results for Greece confirm the human capital theory concerning education, namely, university graduates had higher probabilities of finding a job than people from lower educational categories. However, this was not the case in the field of training, since this variable was found to be statistically non-significant. Thus, it would appear that matching theory has better explanatory power than human capital theory in the Greek context. This is because the former perspective holds that those with more education need less training and in Greece there are many over-educated people. Concerning the interaction effects analysis, the findings on education confirm the human capital theory apart from the case between educational level and the age groups covering the range 15-34. The findings of the interaction effects analysis for training are not different from those for the main effects with the exception of the age groups covering 25 to 64 who were less likely to be employed than those 15-24 years old. Also, concerning training, people who lived in Thessaloniki or in the rest of the urban areas were more likely to be employed than those living in rural areas.

The micro-level individual characteristics analysis has addressed the question “what was the impact of the training programmes at the participant level?” and links to next level, namely the organisation of VET system to facilitate skills formation and skills matching. In the next chapter (6), I examine the extent of and characteristics regarding unemployment in Greece and its relation to educational levels, the education and training system and research the situation in the field of vocational training during the implementation of the first three CSFs. Also, I follow a critique of skill mismatches between education, training and the labour market in that country.

CHAPTER 6: MESO LEVEL ANALYSIS I – THE ROLE OF THE NATIONAL ORGANISATIONS IN VET AND SKILLS MATCHING

6.1 Introduction

In this chapter, I critically analyse the vocational training system in Greece during the first two CSFs and discuss the situation during the third CSF based on the evaluations of other authors. In addition, I explore the matching mechanisms in Greece, with the aim being to establish how far the cascading of EU money for training that I have discussed in chapter 2 was effective. Following the empirical analysis in chapter 5, where evidence was provided that the Greek programmes largely failed to achieve their objectives, the purpose of this chapter is to investigate why this was the case by considering the meso- level. When I refer to analysis at meso-level, I essentially mean conceptual and empirical work that focuses away from individual behaviours and more on institutional complementarities, such as the organisational framework and institutions (e.g. OAED, types of training organisations, interactions with the other institutions e.g. the education system), how they interact with the labour market, other practices (e.g. corruption, clientelism, nepotism) and limitations. Also, literatures that focus on the role of training/skills, the Manpower Employment Organisation, the impact of finance on training and how training was organised are reviewed in this chapter. The aim here and also that of chapter 7, is to describe the VET structure and investigate how adequate or not was the Greek organisational structure to do skills-matching, through secondary data (other studies). The meso-level organisational structure analysis addresses the question “Was the training system, i.e. the institutions, in Greece, both regionally and nationally, effective in helping people to find jobs and if not, why?”. The next section focuses on the characteristics of the educational and vocational training system in Greece during the time period of the study.

6.2 Education and vocational training in Greece: An overview

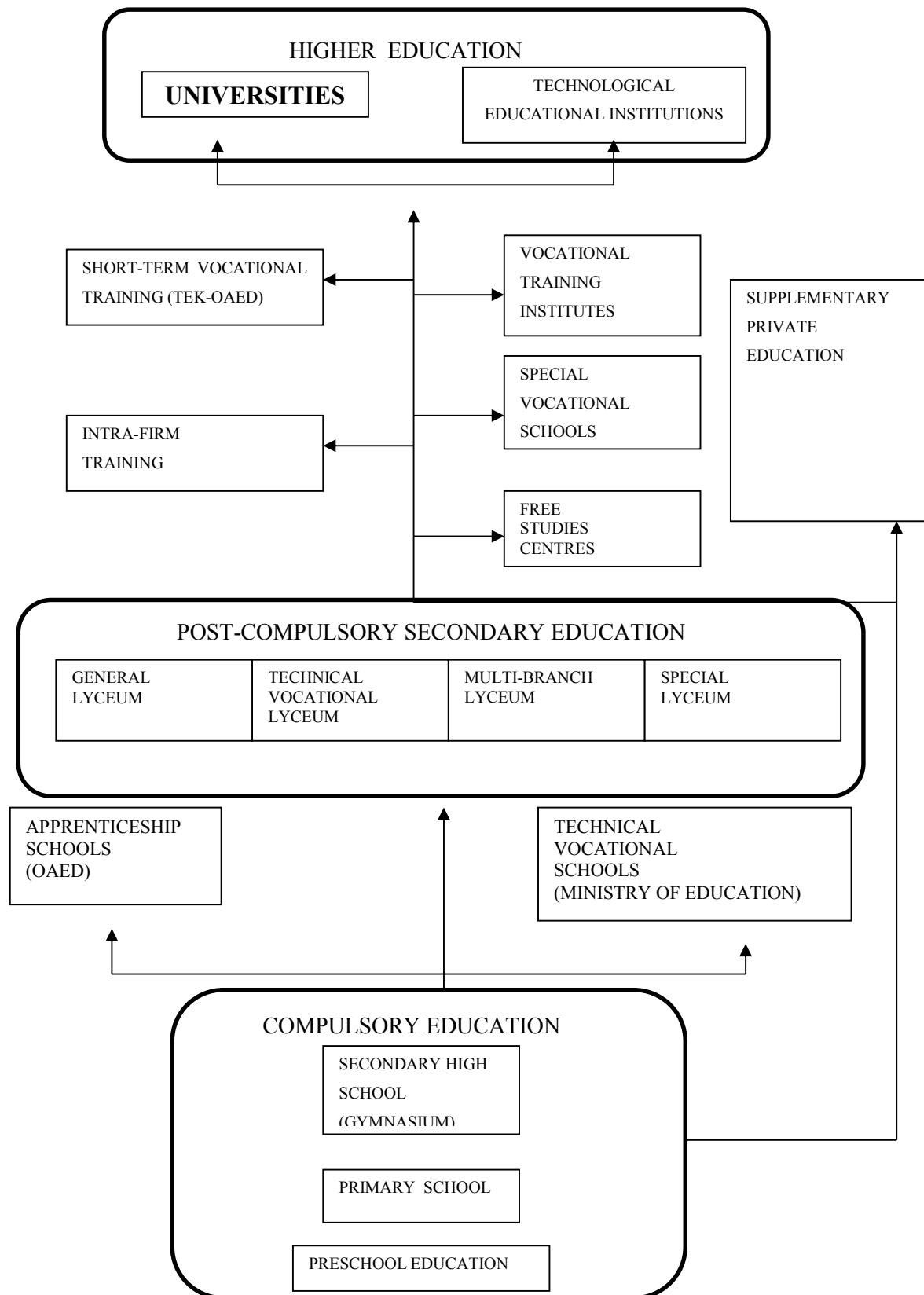
6.2.1 The national system of education and training in Greece in the 1990s

In the 1990s, the Greek mean for public expenditure on education was 3.6% of GDP, whilst the EU average was 5.2%. Regarding other Southern European states, Spain, Portugal and Italy all spent an average of over 4.5% of GDP (Portugal was actually second only to Denmark in the EU, spending 5.7% of its GDP). The structure of the Greek national system of education and training during the period under review is shown in Diagram 6.1. There were three tiers of general education, while technical vocational training consisted of two parts. One part was an organic component of the overall educational system and the other part was independent, being subdivided into various unclassified levels. Public agencies were involved in these, including the OAED, the Secretary General of Popular Training (GGLE), the Secretary General of Youth, the Hellenic Organization of SMEs and Handicraft (EOMMEX), and the Hellenic Centre of Productivity (EL.KE.PA.).

A graduate having completed compulsory education after nine years at school had the following options:

- a. To enter the labour market through initial vocational intra-firm training or through an apprenticeship.
- b. To enrol in a type of post-compulsory education (lyceum) and after graduation to either:
 - i. pass the national exams for studies in a university or a TEI and then enter the labour market with the appropriate academic and/or professional qualifications, or
 - ii. follow either route (a) or (c).
- c. To take any of the available vocational training courses (e.g. in one of the public or private vocational training institutes) and then enter the labour market.

DIAGRAM 6.1: STRUCTURE OF THE GREEK EDUCATIONAL SYSTEM DURING THE 1990s



Source: Kafkalas *et al.*, 1995

The Institutes of Vocational Training (IEK) catered for young and adult school leavers, having completed at least their nine years of compulsory education and was aimed at facilitating entrance to the labour market. The training provided was organised in modules, which combined attendance of classes with practical experience, lasting from one to five semesters and leading to a range of vocational qualifications at various certification levels. In addition, there was private training and education related to specific segments of the occupational structure. Some of these activities, such as those of the schools of complementary education and vocational training, operated on an individual licence basis granted by the Ministry of Commerce as commercial enterprises of free studies without any public or other authority centrally responsible for the standards of the services provided. In this category belonged, for example, schools of hair-dressing and foreign language schools, as well as private colleges providing masters degrees in co-operation with British and other foreign higher education establishments. The graduates of all these schools despite the lack of official recognition by the Greek state could use the acquired skills in the labour market. For example, the graduates of the various colleges providing university level education did not have access to the public sector, but their degrees had an *ad hoc* value in the market (Chasapis, 1996; Daskalakis, 1999).

In addition to the provision of the Ministry of Education, technical & vocational education (TVE) programmes were offered by other public and private institutions, but the role of the latter was relatively low (Goumenakis and Michaelides, 1995). Most students were directed towards public schools that provided this sort of education. The same was true for the initial vocational training (e.g. through the IEK), although in this case the private sector had a noticeable presence (Kazamias, 1986 - as quoted in Goumenakis and Michaelides, 1995).

There are similarities between the Greek higher education system and those found in countries like Belgium, Germany and the Netherlands in that they all have dual systems. There are the universities (AEI) which are comprehensive multi-school, multi-departmental in nature being mainly academically inclined, whilst on the other hand, there are technological educational institutions (TEI), being basically vocational.⁶ This dual system came into being in the 1970s and was the subject of reforms in the early 1980s. The Ministry of Education hoped it would reduce the numbers of university students, because of budgetary pressures, and serve the economy by providing different vocational training and qualifications that were

⁶ For a comparative analysis of the European higher education systems on the basis of the distinction between binary and unified models, see Jallade (1992).

deemed necessary (Petmesidou, 1998). The number of students entering high education has increased dramatically in Greece, as in other EU member states, with new enrollees in Universities and TEI rising from 21,642 in 1980 to 40,840 in 1994 and reaching 82,225 by 2000 (Ministry of Education, 2008). In fact, Greece joined the group of EU countries with the highest enrolment rates with this increase in the number of new students and a big decrease in the number of school leavers (Katsikas and Panagiotidis, 2011).

6.2.2 The Greek VET and CVT systems

To date, there has never been a single, official, institutionalised system of CVT in Greece, even though the term itself was introduced in the late 1980s. Vocational training in Greece developed fast and in an un-coordinated manner under the influence of funding from the ESF. This process was characterised by an intense lack of co-ordination and delays in relation to meeting the social and economic needs of the country. Initial activities of a CVT form started developing in the middle of the 1950s in the country, being organised by state agencies and organisations, but mainly by large private industrial enterprises. However, the absence of an organised and efficient public system of initial vocational training until the beginning of the 1960s and the lack of a specialised workforce to meet imperative needs emerging in the labour market due to the fast and heterogeneous economic growth at that time, led to most of such training activities becoming poor substitutes for initial vocational training (Chasapis, 1994). As a result of this development there was a conceptual ambiguity in Greece concerning the distinction between activities of initial and continuing vocational training. Activities of CVT in the real sense of the word had, therefore, remained essentially marginal, both in terms of their extent and in terms of their role until the end of the 1980s (Chasapis, 1994). Since then, and especially during the period 1990-2010, there was an impressive development of CVT activities, mainly as a result of fast restructuring of manufacturing processes, due to the rapid introduction of new technologies to Greek industry and the service sector.

In this context, as the 1st CSF did not require any ratification or recognition by the state (Chasapis, 1994), the market of CVT was open and characterised by a multitude of heterogeneous agencies providing training to both working and unemployed persons with the state assuming an assisting role. This network was developed irrespective of the official

vocational training system, while most major companies in Greece developed and implemented systematic training courses for their personnel (Linardos-Rylmon, 1995). Over the last twenty years or so, training programmes for the unemployed have been able to expand owing to EU funding. In addition, but on a scale, funds have been provided by the national government, and private businesses. However, there has been no framework for tripartite management (Chasapis, 1996). Although CVT was generally privatised it was supported by the Greek state in the last decade of the twentieth century and in the 2000s. According to Prokou (2011), the increasing reliance on the private sector for training was because public initiatives against unemployment were increasingly being called into question.

It was characteristic that the private IEK skills were concerned almost entirely with the tertiary (service) sector, whereby the training was restricted to informatics, economics, management, tourism, art, health-welfare and communications/media. The public IEK offered skills relating to the secondary and primary sectors too and appeared to be more adapted to the regional and local labour market compared to the private IEK (Papakonstantinou, 1998). Accounting and informatics were the most ubiquitous courses as they were cheap and easy to deliver. However, many who completed these kinds of training programmes, subsequently struggled to find work.

Neither the state, which was primarily responsible for the rational operation of the vocational training system, nor the private vocational training institutes (IIEK) had carried out any serious market research to determine the qualitative and quantitative demand for skills in Greece's production process; far less in the services sector towards which most IEK graduates were headed (Papakonstantinou, 1998). Furthermore, legislative specifications had not been defined for these programmes concerning the analytical curricula, the material and technical infrastructure, safety regulations, the teaching staff, the evaluation procedure, etc. Moreover, a system of certification of vocational qualifications or the rights the trainees acquired following a specific programme had not been made law (Iliades, 1995).

There were problems which created obstacles and made it difficult for the CVT programme to reach its recipients, even when it was specially designed for them. This was the result of a lack of preparatory and reinforcing efforts, as well as the absence of adequate and effective information networks (Dedoussopoulos, 1996). In Greece, the meaning of the term vocational training teacher had not been defined. There were no relevant legal regulations which defined the scope of a professional template or procedures that would determine the individuals who would have the right to be teachers on training programmes.

There were no figures relating to the whole picture for the number of people who were working on CVT programmes (Iliades, 1995). Moreover, the programmes that were funded were selected using criteria that did not allow for the evaluation of their effects on production and employment. The prevailing criteria referred to typical specifications relating to the management of the programmes, and not to the content of the training. Owing to the impossibility of collecting the relevant information regarding the skills that were being selected and the content of the education, Centres of Vocational Training (KEK) programmes could not be evaluated (Linardos-Rylmon, 1998). Also, as mentioned previously, Brussels did not (and until now does not) evaluate the impact of vocational training programmes funded by the EU on the Greek labour market, focusing only on ensuring that bureaucratic and financial controls were in place.

One essential weakness of the institutional framework of VET in Greece was the absence of the systematic involvement of social partners in determining needs in education and training, as also in developing an infrastructure capable of supporting the gathering and production of knowledge in relation to these matters (Linardos-Rylmon, 1998).

The lack of a general institutional framework in relation to CVT resulted in, apart from other things, the weakness of the planning and application of a training policy, in connection with the development of specific geographical regions and branches of the economy (Iliades, 1995). The education-training policy could not, by itself, constitute the solution to unemployment, because unemployment was not exclusively due to the lack of educational qualifications and skills, but to the absence of a particular model of economic development (Chletsos, 1998).

One critical issue during the planning and implementation of the vocational training policy in Greece was the delegating of responsibilities and financial resources to many institutions rather than delivering a unified system of vocational training. This had negative repercussions regarding the distribution of training programmes to be promoted, i.e. the split between general and specialised. In sum, a rigorous economic strategy at the national or regional level that provided linkage between programmes as well as acknowledging the needs of local labour markets was notably absent (Getimis and Gravaris, 1994). From the above, the Greek model of CVT when considering the classifications of training systems discussed in chapter 2, has failed to belong to any of the types identified as being beneficial in other EU countries.

6.2.3 Vocational training in Greece during the first three CSFs (1989-2006)

As mentioned, the system of CVT in Greece was developed from scratch, mainly due to its incorporation into Community funding programmes. It should be noted that there are no accurate statistics available to estimate the number of persons attending CVT programmes annually. As emerges from the available statistics (for 1991), 6.8% of those attending CVT programmes offered by the ESF were long-term unemployed and 29% were recorded as unemployed belonging to other groups (duration of unemployment below 12 months) or persons newly entering the labour market (see *Table 6-1*).

Table 6.1 Training programmes co-funded by the ESF in 1991.

Analysis of groups of trainees.

Whole of Greece

Group category	Number of trainees	% of total labour force	% of trainees
Long-term unemployed	15,531	0.39	6.8
Unemployed	66,367	1.69	29.0
Employees at risk of unemployment	113,582	2.89	49.7
Employees	23,820	0.61	10.4
SMEs	3,706	0.09	1.6
Persons with special needs	3,431	0.09	1.5
Special programmes only for women	2,184	0.06	1.0
Total	228,621	5.82	100.0

Note 1: Repatriates excluded.

Note 2: Secondary technical and vocational schooling and TEI are not included.

Source: Balourdos and Chryssakis, 1998.

An important development of CVT in Greece was the founding of the Organisation of Vocational Education and Training (OEEK) in 1992, aimed at organising and developing a national system of initial and continuing vocational training. OEEK was appointed as a supervising authority and the IEK, both public and private, operated as its agencies. During the 2nd CSF years 1994-1995 many improvements on the 1st CSF were undertaken. Specifically, the following were established:

- The National Centre for the Certification of CVT Structures (E.KE.PIS.), in accordance with the provisions of Law 2224/1994, regulated employment issues and other related matters. The centre, under the supervision of the Ministry of Labour, was aimed at developing models and establishing procedures for the certification of centres providing CVT. It ascertained the quality of training courses, the training and certification of trainers and the development of co-operation schemes on such issues at the European level.
- Criteria were set to create agencies to provide training, i.e. the KEK mentioned above.
- Programme management criteria. .

The most important changes in the system of vocational training during the CSF-2 (1994-99) concerned the practical elimination of all forms of training schemes funded by the ESF under CSF-1 1989-93. Instead, the Ministry of Labour introduced a system of approved KEKs which were central, sectoral or regional. All ESF funds previously used to finance individual programmes and *ad hoc* providers of training services had to be directed and co-ordinated through the approved centres. The ministry went even further and constructed detailed lists of training seminars which could be undertaken by these centres (Kafkalas *et al.*, 1995).

Regarding the planning and implementation of CVT programmes in the context of the CSF-2, the problematic situation that prevailed was similar to that of the CSF-1, at least up until 1996 (Daskalakis, 1999). Specifically, as seen from the statistics available, for actions of CVT approved for 1995 within the framework of Operational Programme (OP) for CVT and the Promotion of Employment, out of a total of 101,872 approved training positions, 85.5% concerned persons employed in the private or the broader public sector and only 14.5% catered for the unemployed (Balourdos and Chryssakis, 1998). Regions with a high increase in employment (mainly Central Macedonia and Attica) were also those with a relatively high number of private sector trainees (KEPE-REMACO, 1997).

It was estimated that about 90,000 to 100,000 individuals were trained in 1996. The majority of the trainees (52.3%) were women (training 1994-96 based on LFS data), but no significant differences appeared concerning the trainees' characteristics in terms of gender. There were, nevertheless, gender differences in the type of programmes. Men participated more than women in intensive training programmes at work, or in OAED apprenticeships. Conversely, women were more concentrated in popular training (see chapter 1, section 1.2 for

a definition) and the other programmes. It is notable that popular training mainly attracted individuals outside the workforce or the unemployed (KEPE-REMACO, 1997). About half the individuals who participated in training programmes were aged over 25 and those aged between 20 and 24 comprised the biggest of the five-year groups involved. The younger ages were confined to the apprenticeship programmes, whilst the more mature were in intensive training at work, the programmes of popular training and the other forms, including CVT (KEPE-REMACO, 1997).

According to the LFS, in 1996 there were 49,277 individuals who had undergone vocational training lasting at least one year, a number which was equivalent to 1.1% of the workforce. These were mainly individuals who had attended vocational training schools (about 20,000) or special vocational training under the dual system of instruction couple with job practice (another 20,000). Half of these people were graduates of secondary education and about seven out of ten lived in urban areas, whilst 68% were in work. These characteristics of those trained taken from 1996 were not systematically different from those in the earlier 1990s (KEPE-REMACO, 1997). In the period 1994-96, 66,318 individuals were trained through OAED, being employed in the private sector of the economy and more likely to be successful at obtaining jobs, if they lived in the two main urban areas, namely, Athens and Thessaloniki, which had the highest levels of employment in the country. In the same period, 38,907 individuals who worked in the primary sector were trained by the Ministry of Agriculture. Apart from these individuals, about 43,500 employees in the wider public sector accepted training through the “CVT and Employment” OP. However, there were no regional figures for them, which in any case would not have conveyed much meaning as many of the trainees came from outside of the respective areas (KEPE-REMACO, 1997). Regarding training actions catering for the unemployed in the framework of the OP of CVT in the CSF-2 (*Table 6-2*), approved training positions were distributed in such a manner that women were significantly over-represented compared to men (70.35% participation as opposed to 57.8% for men, respectively). However, there has never been any in depth evaluation as to whether men or women participants succeeded in obtaining employment subsequent to undergoing these training measures (Balourdos and Chrysakakis, 1998).

Table 6.2 CVT programmes for the unemployed by gender and educational level.**Number of persons approved in 1995****Whole of Greece**

Number of trainees by gender and level of education	Measure 1 (primary sector)		Measure 2 (secondary sector)		Measure 3 (tertiary sector)		Measure 4 (local development)		Total	
	N	%	N	%	N	%	N	%	N	%
Gender										
Males	959	29.90	0	0	1,924	41.87	1,507	25.05	4,390	29.65
Females	2,248	70.10	988	100	2,671	58.13	4,509	74.95	10,416	70.35
Total	3,207	100	988	100	4,595	100	6,016	100	14,806	100
Level of Education										
Up to secondary	2,562	79.88	540	54.65	985	21.43	4,294	71.38	8,381	56.6
Higher	645	20.12	448	45.35	3,610	78.57	1,722	28.62	6,425	43.4
Total	3,207	100	988	100	4,595	100	6,016	100	14,806	100

Source: Ministry of Labour.

During CSF-1, the Economic and Social Committee of Greece (1998) observed the following problems in relation to Greek training:

1. Despite institutions having been created to define and shape vocational training policies, they: (a) did not work (e.g. ESEKA), (b) operated circumstantially (PEEKA, NEEKA, Programming Cycles, OPs and Initiatives Monitoring Committees) and/or (c) had limited objectives and an unclear role. At the same time, the types of training that were instituted and the organisations created to implement them were wholly unconnected with any overarching strategy (e.g. the OEEK, different levels of IEK, EIE, EPA, E.KE.PIS., TEE - see the abbreviations list for full names), which frequently resulted in an overlapping of competences, levels and skills.

2. While it was true that the instruction and training actions supported by the structural funds had resulted in the development of communications networks and information systems, the fact remained that these were only accessible to a limited number of users, thus resulting in a lack of information about the opportunities and possibilities of securing training funds. This lack of information was most apparent in SMEs as well as local and regional organisations (e.g. non-governmental organisations). Moreover, all too often, even where the

information was obtained, the emphasis on bureaucratic procedures created insuperable difficulties for small businesses, with the result that the benefit they derived was miniscule relative to the proportion of their share of the workforce. In addition, the self-employed encountered similar difficulties with regard to access to training, despite the fact that they were perhaps the most important element in the national economic fabric, since one in three Greek workers had (and still has) his/her own business.

3. The CVT programmes had a cut-off age of 45, thus making training unavailable to older workers. This, together with the ageing of the workforce (particularly marked in the secondary and tertiary sectors), the raising of the retirement age, and the fact that as a group older workers were generally less educated than younger individuals, raised insurmountable barriers to their access to training opportunities.

4. The training programmes failed to specify trainer qualifications and there was no overarching system assuring the quality of certification of those trained or any reference to their occupational rights (Iliades, 1995). In fact, only A.S.PE.T.E. (ex SELETE) provided its vocational education instructors with some initial teacher training. It is worth noting that, although the CSF-2 CVT OP provided for instructor training, as of 1998 the specific measure had not been implemented.

5. Vocational guidance was restricted to a brief course in the secondary school curriculum, and there was a total absence of vocational guidance and/or re-orientation policies and programmes for the unemployed.

With regard to the intensive training programmes offered by OAED, their greatest problem was the disparity in the ages and ranges of occupational origins of the participants. In addition, the effect of these programmes on the employment prospects of the trainees was minimal (KODE, 1991:21; KOE, 1994). In an attempt to counter these, the new programmes announced by the Ministry of Labour in 1995 as part of CSF-2 had no age limits and efforts were made to ensure that those who participated had similar needs.

Vocational training in the agricultural sector was particularly inadequate, from both the quantitative and the qualitative points of view, despite the efforts that had been made (Athanassiou, 1994). Aggravating factors included the lack of instructors and material infrastructure in rural areas. Another problem was that only a few of the trainees actually intended to apply what they learnt, most of them registering for training only in order to be eligible for the subsidies this entailed. There were no serious studies evaluating any these programmes, and statistical monitoring was non-existent (Vrogistinos, 1988, p. 108). It is noteworthy that there are authors like Economou (1997) who suggested that the first Greek

CSF (1989-1993) turned out to be a failure due to the reproduction of the clientelist relations, which they contended were the essence of Greek policy and administration.

Even during the CSF-2 an issue of fundamental importance in the field of CVT was that there was no certification or recognition of skills and competences acquired by trainees. No system of examinations was in place and the structure and content of curricula was not controlled, which came under the responsibility and jurisdiction of the KEK. Thus, ordinary certificates of course attendance issued to participants had no value whatsoever in the labour market, as they reflected no recognised qualifications (IN.E./GSEE-ADEDY, 2000). As a result, a system similar to that of initial training was established for CVT.

Furthermore, the implementation of CSF-2 was characterised by:

- Serious inability of state mechanisms in handling issues of planning and implementation (incapacity to deal with complex problem-solving, insufficient planning and shortcomings of effective implementation).
- Difficulties in implementing actions, especially the more innovative ones.
- Insufficient preparation for the implementation of interventions, which lacked necessary measures and pilot applications, while in many cases planning was undertaken *a posteriori*.
- Inability of public administration to meet its obligations and complete the implementation of measures, even in cases - and there were many - when preparation had been satisfactory.
- Absence of integrated timely evaluation schemes which meant the use of their results for improving programmes was impossible and this largely attributed to delays in funding.
- Sub-standard selection of eligible plans, etc.
- Lack of data with clear information on the funds spent on different programmes, e.g. comparing programme participants and their educational characteristics (IN.E./GSEE-ADEDY, 2000).

Particularly with regard to training programmes for the unemployed, the method of identifying skills requirements, on the basis of which the programmes were offered, was wholly inadequate. It was based on changes in labour force categories derived from the LFS, on estimates of the impact of investment programmes on employment (where these existed or where such estimates were possible) and on job market surveys. These last recorded shortages of skills on the basis of company estimates of their own shortages, which were

often inaccurate or did not correspond to the capacity of the firms to utilise the skills demanded (Linardos-Rylmon, 1998).

Policies concerned with training and retraining for the unemployed had been confined to continuing training programmes. Vocational training programmes for the unemployed were wholly unconnected with employment policies, and were thus wasteful of training resources (Economic and Social Committee of Greece, 1998). This was reflected in the fact that the unemployment rate for those (20-29 years old) with complementary vocational training in Greece was 20%, compared to 14% for those who had completed only compulsory schooling; the corresponding figures for the EU were 11.5% and 23.5% (see *Table 2-5*).

With regard to ensuring the employment of graduates of apprenticeship schools, a review of a number of collective agreements showed no link between completion of this type of programme and procedures relating to the certification and establishment of their vocational qualifications. It would appear that the relatively heightened effectiveness of apprenticeship programmes had not acquired an institutional form with regard to certification procedures, but was more associated with the development of inter-personal relationships (Dedoussopoulos *et al.*, 1998).

With regard to intra-firm training, this was only provided in a well-designed and systematic manner by a small number of large companies. Most firms, on account of their size (1-8 persons) and lack of resources to cover the costs of continuing training, had no human resources development policy and did not invest in continuing training (Tasios, 1990, p. 86). An additional difficulty was that small firms could not assess their human resources needs, design continuing training schemes or calculate the cost or benefit of their implementation. Since the early 1980s, private agencies had become involved in intra-firm training, offering service packages that included needs identification and the design and realisation of appropriate training programmes. The cost of such services, however, put them out of the reach of the overwhelming majority of small and medium-sized Greek firms (Balourdos and Chryssakis, 1998).

It should be noted that in designing a global system for evaluating and monitoring the operational results of training interventions in the human resources, the aim should be to ensure the greatest possible active participation of training institutions in a framework of self-evaluation procedures, whose reliability, adequacy and effectiveness should be continually monitored and evaluated by outside auditors. This, however, had never happened in Greece, with either of the first two CSFs, apart from there being bureaucratic controls (Balourdos and

Chryssakis, 1998).

The 2000-06 OP of CVT and Promotion of Employment was one of the most important policies for the development of human potential in the country. It was consistently supported by hard data with clear, well-focused and prioritised goals. It was anticipated that 2000-06 OP planning would underline the creation of mechanisms that would allow for the tackling of various problems. Furthermore, it was to be the first time that a framework for the implementation of employment policies that was capable of evaluating the efficacy of its interventions would be established and hence, implement corrective actions (IN.E./GSEE-ADEDY, 2000). One of the main points discovered by the Ministry of Labour and Social Security about the above OP (RDP 2000-06) was that it did not provide for nor implement in good time ways of studying the impact of training (IN.E./GSEE-ADEDY, 2000).

The programme was characterised by contradictions in the preparation of policies responding to recognised needs for the development of the human potential in Greece, also being limited to generalities. Furthermore, there was a complete lack of co-ordination of policies and actions to resolve the employment issue, which were not fully processed and, therefore, the programme could not guarantee their timely, reliable and effective implementation. Finally, all the vocational training policies, whether they were initial, continuing or training for the unemployed, did not apply a complete system of evaluation and observation of their results that allowed permanent re-providing and readjustment. Instead, they functioned as closed systems where the determining factor for the planning and materialization of policies was the supply and not the demand of the relative vocations and specializations (INE/GSEE-ADEDY, 2007).

The basic restriction for the development and application of the European Credit system for Vocational Education and Training (ECVET)⁷ in Greece was the absence of a Unified National System of Professional Qualifications and the absence of a National Register of Professions (Dimoulas, 2007). For example, in France with the concentration of units of knowledge and skills, it was possible for an individual to acquire full certification of his/her vocational qualifications after the readjustment of the examination system (Westerhuis, 2001, p. 49). The next sections of this chapter examine whether there was matching between supply and demand for labour in the Greek labour market in the 1990s.

⁷ ECVET is aimed at facilitating the accumulation, transfer and recognition of knowledge, skills and competences gained by individuals towards a qualification. It is applicable to learning outcomes gained through periods of VET abroad and is intended to make it more attractive for people to move between different countries and different learning environments.

6.3 Skills mismatching in Greece during the reference time period

6.3.1 Matching mechanisms in Greece

In Greece, the matching of labour supply and demand remained the exclusive responsibility of the state during the reference time period of the study, and legally the only institution competent to supply such services was OAED. In practice, however, there were already a host of private employment bureaus in existence, some of which functioned more or less formally as such (for business executives, artists, etc.) and were tolerated by the state, whilst others operated informally (e.g. those that supplied immigrants for domestic service, etc.). An intermediate situation between public and private employment bureaus was represented by the services that had begun to be created by social agencies and institutions, usually with support from ESF programmes, which targeted specific groups such as, for example, the careers offices that had been set up by certain universities for their students (Paleologos, 1999).

OAED was created in the 1950s, being reformed in the late 1960s and remained unchanged until the mid-1990s. In Greece, the U/V curve (the association between unemployment and vacancies) showed a positive trend after 1985, thus underlining the inadequacy of the OAED agencies to match labour supply and demand (Dedoussopoulos, 1997). Quite a few programmes required various competent agencies completing lists of records; however, there was no single monitoring system, so data from these records could not be cross-checked. In particular, they could not be used to check whether the prerequisite conditions for statistical processing were in place or for drawing conclusions and hence, being able to improve the programme (Ketsetzopoulou and Bouzas, 1996).

An attempt to remedy this situation in 1982 involve the establishment of employment bureaus that would function separately from the other services of OAED and would be solely concerned with matching labour supply and demand, chiefly by means of information supplied by employers and job-seekers. The scheme, however, remained incomplete. The reasons for this had to do with the limitation of funds, the lack of material infrastructure, and the lack of suitably trained and qualified personnel (Dedoussopoulos, 1997, p. 52). At the same time, the staffing of these employment bureaus was insufficient in number (Dedoussopoulos *et al.*, 1998), which can be confirmed by comparison of similar organisations levels in other EU countries (see *Table 6-3*).

Table 6.3 Characteristic figures for European employment organisations

Member State	Personnel	Personnel in active interventions	Manpower per employed person	Unemployed per employed person	Manpower per employed person in active policies	Unemployed per employed person in active policies
Spain	15,322	13,208	989	182	1,147	211
Germany	78,018	49,627	497	38	782	60
Ireland	-	2,187	-	-	624	102
Portugal	-	3,662	-	-	1,228	51
France	31,450	20,000	796	83	1,251	130
Greece	2,023	700	1,994	173	5,763	499
Italy	-	-	-	-	-	-
Denmark	6,649	2,149	426	48	426	48
Netherlands	15,000	6,000	476	32	1,189	80
UK	37,349	-	752	75	-	-
Belgium	9,935	5,765	426	44	735	75

Source: Dedoussopoulos *et al.*, 1998.

Efforts to rationalise the distribution of personnel and the staffing of employment bureaus - both territorially and administratively - made during the 1980s came to nothing. It should be noted, meanwhile, that the staff of the organisation had been significantly reduced over the period 1987-1997, while at the same time there had been a considerable increase in the volume of work (unemployment subsidies and active interventions) (Dedoussopoulos *et al.*, 1998). Subsequently, several international institutions (OECD, EU) viewed reforming the OAED as essential, if Greek employment policy (GEP) were to be improved. In line with this, successive laws were passed during the late 1990s and 2000s, which represented a substantial break from the historical legacy of immobility and stagnation (Zartaloudis, 2014).

Findings acquired from an interviewed sample of policymakers (see Zartaloudis, 2014), demonstrated that the EES impact was limited to two out of the five policy stages of Greek employment policy (see *Table 6-4*). The reason for this has been attributed to their overlooking the strategy as it was not on their agenda and hence, did not feature in their proposed reforms of the OAED. By contrast, ESF conditionality appears to have an impact on the attention paid to the third and fourth policy stages (decision making and policy-implementation, respectively). Moreover, the nature of EES-induced change was indirect, whereby the GEP introduced new programmes through Centres of Employment Promotion (KPA) and KPA2, aimed at providing individualized support to the unemployed in the form of consultation, training and employment subsidies. Nevertheless, the EES did not succeed in heading off the original aims of the GEP, KPA and KPA2, because they did not replace the

OAED as its main institution. Indeed, despite the change of the GEP's content, it remained and Europeanization was outsourced to small independent agencies tasked with delivering the new EES-induced policy. Consequently, it becomes apparent that the EES did not bring about a paradigm shift (third-order change or transformation) in the GEP. That is, Greece merely adjusted its existing processes, policies and institutions without altering their basic features or the underlying collective meanings attributed to them. In particular, although there was pressing the need to provide robust data on ESF programme performance, the GEP did not manage to achieve this. As a result, there was little produced at the policy evaluation level and there was no change at the domestic level, largely because the EES drivers failed to take hold. The EES effect on the Greek public employment services is summarized in *Table 6-4*.

Table 6.4 EES impact on Greek public employment services

Policy stages	Degree of EES-induced change
Agenda-setting (problem recognition)	Inertia (no change)
Policy-formulation (proposal of solution)	Inertia (no change)
Decision-making (choice of solution)	Upgrading (second-order change)
Policy-implementation (putting solution into effect)	Upgrading (second-order change)
Policy-evaluation (monitoring results)	Inertia (no change)

Source: Zartaloudis, 2014.

6.3.2 Matching educational system and labour market needs in Greece

Research in Greek universities used to be almost non-existent until early 1990s, which was criticised for many years. Hence, students aspiring to obtain a masters or a PhD often had to go abroad, which was also subject to criticism. In particular, research on postgraduate training was only nascent (Kelpanides and Papanauoum, 1998). Indeed, it was only in late 1990s that Postgraduate Research Training (PRT) began to be developed in Greek universities. There was a very high demand for university education (only one in five applicants was admitted in 1990 - Glytsos (1990b), rising to one out in two in 2002). The predominance of the public sector in the graduate job market shaped both individual preferences and, to a considerable extent, higher education institutions behaviour (see Glytsos, 1988). Due to the lack of selectivity in the public sector hiring and the uniformity of

remuneration, students were traditionally motivated to select easier studies. By choosing easier to enter and to study fields, the chances of failing were reduced and the possibility of repeating the effort in subsequent, thus spending additional amounts of money for preparing for the very competitive entrance examinations - a common and expensive phenomenon in Greece - was minimized (Glytsos, 1990b).

The existing literature has not given enough importance to the high level of graduate unemployment, despite it being one of the major features of the Greek labour market. Using the micro-data from the Greek LFS that is obtainable, Livanos (2009b) examined the variations in the employment status of university degree holders up to 35 years old in relation to their discipline of study. The results indicated that graduates of technical universities and having studied subjects like computer science that were associated with high levels of employment in private companies, were more likely to be in a superior position in the Greek labour market. Graduates in fields that were normally connected to the requirements of the public sector, however, such as sociology and the humanities, had lower probabilities of being employed in the private sector.

The relatively high proportion of graduates in public employment holding general degrees in law, political and social sciences, and economics, without any specialization, was a manifestation of over-qualification, or mal-qualification. Moreover, it was common practice to employ university graduates in places for which third level non-university education would be adequate (Glytsos, 1990a). The estimated quantitative graduate imbalances (Glytsos, 1990a) pointed to a three-dimensional disharmony in the higher education-labour market relationship: between the demand for and the supply of graduates, between the demand for higher education and the places available at the universities, and between the needed educational capacity to satisfy demand and the resources allocated to it. This made it difficult to devise a mix of non-conflicting feasible policies that would bridge all these mismatches. A consequence of this situation was that industry and the agricultural economy were unable to organize themselves and develop into modern productive units with a high level of yield, in the framework of the international division of labour. Moreover, the public sector limited its action to essentially bureaucratic competence and activities or to the provision of non-exchangeable services internationally. Greece seems to have manifested over-education by any of the criteria mentioned above and the relative remuneration of university graduates was decreasing through time, mainly because of their over-supply (Glytsos, 1990b).

According to Tsakloglou and Cholezas (2005), between 1988 and 1999 the percentage of the labour force with tertiary education qualifications rose from 14.1% to 22.2%.

Furthermore, between 1994 and 2001 Greece had one of the highest over-education rates of all the EU countries examined, according to Dolton and Marcenaro-Gutierrez (2009), using comparable ECHPS data. It would therefore seem to be true that a high proportion of the large investment of Greeks in human capital had gone into professions that were not compatible with the needs of the labour market (Livanos and Pouliakas, 2009).

Meghir *et al.* (1989) analysed the main determinants of female participation and male unemployment duration in Greece using data from the 1981 LFS. An interesting finding is that male unemployment duration increased with education level. However, according to the studies of Kostaki and Ioakimoglou (1997), and Ketsetzopoulou and Kostaki (2000), based on logistic regression analysis with Greek LFS data (the second study for 1994), higher education completion did increase chances of employment. Also, according to the study of IN.E./GSEE-ADEDY (1999), based on the processing of ESYE data, the probability of a person becoming long-term unemployed depended on his/her age, gender and family status. Both Greek farming and industry consisted of many pre-eminently small businesses of traditional activities, which did not require administrative and technical staff with higher education and specialization. Moreover, the family character of many Greek businesses meant their owners avoiding the hiring of staff (including those with high qualifications) or implementing innovative ideas of high skilled people, with the result being that industry was unable to create enough new positions for people with relatively high specialization and hence, incapable of absorbing the increasing numbers of graduates (Kanellopoulos, 1984). The educational system did not seem to satisfy adequately the needs of industry for specialized technicians, especially at the regional level. Only five out of the 16 TEI's Technical Application Schools (focusing on purely technical studies) could be considered as offering training in skills for special industrial sectors (Glytsos, 1996). Certain intermediate and lower level skills were not provided at all by formal education establishments, while others were provided with inadequate quantity and quality (Kanellopoulos, 1996).

A general observation about the selection of trades / skills was that the choice was not determined by a study of market needs, but was guided by purely functional and administrative procedures. The result was that the range of skills offered was only very loosely connected with job market developments (Dedoussopoulos, 1994, p.183). It was pointed out that out of the 30 courses offered in total at technical and vocational training schools, only half a dozen were related to basic industrial manufacturing production (Toutziarakis, 1995). The basic training in Technical Vocational Lyceums (TVL) presented, and to a large extent still does, serious weaknesses and dysfunctions, both administrative and

educational. It was unable to educate professionals consistent with the rapid developments in the labour market, whilst at the same time preparing them for tertiary education. The labour market and businesses were not satisfied with the basic education provided in TVL (Iliades, 1995). The failure of TVL was associated with the low quality of the programmes offered and the limited level of knowledge and skills imparted (Dedoussopoulos *et al.*, 1998), which remains the case today. According to the study of EL.KE.PA./Institute of Management (1990) the main weakness of the Technical Vocational Schools (TVS) was the non-existence of a unified system of search, collection, concentration and development of the necessary information, an essential procedure for the making of a decision. So, the system did not constitute an entity, with the result being that it was not possible to evaluate the level of its efficiency.

Expenditure on intra-business training was triple the total spent on technical and vocational education (by the Ministry of Education), and six times as high as OAED's funding for apprenticeship schools and intensive training (including funding from the ESF). Such unequal expenditure reflected the businesses themselves successfully lobbying for control of the greatest share of the total funds spent on vocational education and training. Such an imbalance, not only undermined the potential of formal education, but also militated against the possibility of realising effective vocational training courses (Linardos-Rylmon, 1995). In addition, there was a lack of co-operation and mutual exchange of information between the educational system and the labour market, regarding the emerging new skill needs in the production process and the required adjustment of curricula as well as the development of new fields. Moreover, there was a lack of co-operation between the suppliers of the various programmes at all levels and types of education regarding their competencies and duties. As a result, many specialities were provided at many educational levels in the same region, while others were absent (Kanellopoulos, 1996). Private sector employers frequently complained that the level and the kind of knowledge and training provided by the educational system were rather low. Their general criticism was that the knowledge provided still maintained its general and theoretical character, thus remaining distanced from the realities of technological evolution (Kanellopoulos, 1996). Moreover, public opinion on TVE was still unfavourable when compared to that for general education.

Several studies have attempted an evaluation of the apprenticeship system in Greece (Kassimati *et al.*, 1984; University of Macedonia, 1994; University of Patra, 1994), which, in contrast to my results, found much that was positive (these findings are in contrast to my econometric results presented and discussed in chapter 5). Participating employers also

reported significant advantages to the institution of apprenticeship (University of Macedonia, 1994), since the system supplied them with skilled workers trained in the productive processes of the specific firm, who equally able to perform their professional duties in other workplaces. However, according to other studies apprenticeship programmes were geared towards traditional trades which were difficult to change. This relative inflexibility in relation to adapting apprenticeship programmes to more modern trades was noted in a host of studies (University of Piraeus, 1990; University of Piraeus Research Centre, 1994 - as found in Dedoussopoulos *et al.*, 1998), and even by OAED executives themselves⁸. I contend that my findings are more robust than the results of these studies, since the latter were mostly qualitative and based generalisations for the whole of Greece taken from a few interviews. The remainder employed limited data e.g. aggregated data of the LFS and hence, their outcomes are somewhat unreliable.

During the reference time period of the study, the state was not equipped with the mechanisms and the flexibility required to change the curricula and follow the evolution of science and technology and local labour market conditions (Kanellopoulos, 1996). At the same time, procedures for education, training and entry into the labour market were not anticipated for the vast numbers of young people who did not succeed in obtaining tertiary education places (Iliades, 1995). Later studies by Greek researchers shed more light upon the reasons for high unemployment rates among graduates in Greece and their problems moving into work from education. According to Kanellopoulos *et al.* (2003), these transition problems arose because higher education was geared towards public sector needs and thus failed to meet the needs of the business sector. However, Liagouras *et al.* (2003), Karamessini (2008, 2010) and Thomaidou *et al.* (2009) claimed that the most important reason was the discrepancy between the outflows from higher education and the domestic demand for well educated staff.

6.3.3 Skills needs, skills shortages and their study in Greece

The few available empirical studies of the relationship of the qualitative characteristics of production with the knowledge and abilities of the workers lead to the conclusion that the

⁸ See for example Konstantinopoulos (1993).

Greeks did not in reality face a shortage of specialities, but rather the failure of a large number of businesses to make use of the existing workforce, whether specialised or unspecialised (Linardos-Rylmon, 1995). A second general conclusion is that the most efficient and competitive businesses did not face, as a rule, a problem of skill shortages, finding ways of placing and educating the labour force, and also of acquiring the specialities they needed (see studies at local level in the clothing branch in Northern Greece – Andrias *et al.*, 1995; Linardos-Rylmon and Petraki, 1995).

The Association of Greek Industries (SEV - 2010), the largest employers association in Greece, conducted a survey in which 92% of businesses said that over the period 2004-2009 they wanted to employ university graduates with technological skills and 62% stated that this was proving to be difficult. A report by the National Committee for Competitiveness and Development, which had been approved by Greek employers, blamed the Greek educational system for not creating strong bonds with organizations familiar with markets (Association of Greek Industries, 2004, pp. 5-6). Moreover, one of the main reasons preventing Greek young people from gaining work skills that would make them more employable, according to the SEV, was the failure to provide work-based learning like internships and work placements (Association of Greek Industries, 2003).

Today the dominant academic consensus appears to overlook whether skills that the Greek economy needs for the future are being developed independently of vested interests. The preference is to emphasize research into the labour market that addresses business needs and shortages. During the reference time period of the study, attempts to determine and provide real skills needs were confronted with the same dominant approach, which closed the discussion in multiple ways. The only way to verify the skill needs was the carrying out of research with questionnaires, which recorded businesses preferences as opposed to real need (Toutziarakis, 1995). This approach ended in a discussion about the creation of a competitive environment in the market of CVT, which concentrated on supply, thus resulting in poor knowledge of demand, as businesses were not obliged to report systematically their skill needs to OAED. The dogmatic devotion to the exclusive gathering of information for the labour markets on the employer's side, the permanent transfer to the state of the problem of technical training and the level of technical staff, effectively exonerated businesses from having any responsibility for the quality of industrial production and the problems regarding the quality of education (Linardos-Rylmon, 1995).

The Institute of Economic and Industrial Research (IOBE) gave the reasons for high unemployment as the failure of the education system to respond to rapid technological change

and the slow progress of a substantial proportion of the economy's productive (private) industry in meeting the needs of the increasingly global economy (IOBE, 2007). Effective utilization and improvement of matching mechanisms by such as the National System for Linking Vocational Education and Training to Employment, the career offices of AEI and TEI as well as the services of OAED, would help address youth and graduate unemployment. Moreover, participation of private human resources management firms could also be an important factor. In contrast to what occurs in other countries, in Greece the few such firms geared towards recruiting high-skilled executives do so chiefly for multinational corporations. This is probably owing to the aforementioned structure of the Greek economy, with its predominance of small and medium-sized firms, which generally do not need specialised (especially private) entities for meeting their human resources needs (Mitrakos *et al.*, 2010).

6.4 Conclusion to the chapter

On the basis of the evidence presented in this chapter, the fact that the system of the EU funded vocational training in Greece did not appear to work suggests that there were problems in the way the various feedback mechanisms interlinked/interacted, which still exist today. This was the result of negative domestic factors and the nature of the EU training financing. Regarding the latter, the EU body providing the funding restricted itself to auditing that the money was being spent on skills training and totally disregarded labour market outcomes. Although the EU approach to vocational training is very much influenced by the human capital theory, the Greek VET system was, and remains, incompatible with this EU perspective. In the field of education and vocational training there was (and still is) no integrated system of recording the skill needs and shortages in the Greek economy, which seriously damaged the prospects of matching between supply and demand for labour. Despite this, the EU continues to finance training activities that will most likely continue to fail in Greece, as long as it remains a low-skilled economy in terms of the specialities demanded. In other words, the human capital theory on training does not appear to be applicable in the Greek context. Perhaps Brussels has been waiting from Greece to modernize its economy (in terms of innovation, new technology, and public administration) and liberalise its labour market in order to become more open and more competitive, which could have been achieved in combination with macroeconomic policies e.g. promoting the knowledge-economy. Still,

for the period under investigation, the high-skilled labour force could not be absorbed in Greece. It appears that a strategic plan to create demand for training was absent. Intentionally or not, and without wanting to sound too cynical, the evidence suggests that EU funded training was utilized more for ‘parking’ the unemployed and less as part of a well articulated national economic strategy.

In respect of the meso-level of analysis, the organisation of vocational training was inadequate. The reasons for OAED’s limited intervention in the matching process related, first of all, to institutional factors (deficient institutional frameworks, absence of incentive for reporting job vacancies) and secondly, to functional ones (insufficient network of employment bureaus with explicit definition of their responsibilities, lack of specialisation of their personnel and absence of systems providing information informing the unemployed about the training programmes). Given that OAED was the main organisation tasked with helping the unemployed find work and its inability to implement the above necessary systems, it is not surprising that it failed to find solutions to unemployment. I now proceed to research the regional variations, if any, at the meso-level of analysis.

CHAPTER 7: MESO LEVEL ANALYSIS II – THE ROLE OF THE NATIONAL ORGANISATIONS IN VET AND SKILLS MATCHING: REGIONAL VARIATIONS

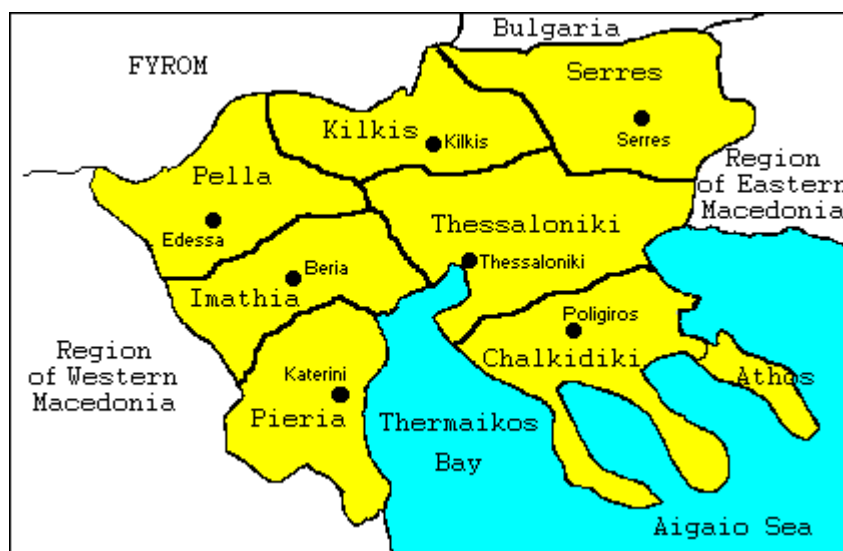
7.1 Introduction

In this chapter, the focus is on the labour market of the two NUTS-2 areas under examination (Attica and Central Macedonia). I use aggregate data of the LFS for the two regions (sub-sections 7.2.1 and 7.3.1) and explore the matching mechanisms at this level, i.e. the meso-level (sub-sections 7.2.2 and 7.2.3). I critically analyse the vocational training system at the regional level in Greece based on evaluations of other authors. I also discuss the unemployment and educational characteristics of the labour market in the two focal regions, as well as comparing unemployment and educational inequalities in the two NUTS-2 regions under study along with the corresponding figures for the entire country (sub-section 7.3.2). The general aim is to examine how far the cascading of EU money for training, as discussed in chapter 2, was effective at the regional NUTS-2 level. The next section discusses unemployment, education and vocational training in Central Macedonia.

7.2 The region of Central Macedonia

Central Macedonia is the largest region of Greece (19,147 km² - 14.5% of the country's surface) and is situated in the centre of Northern Greece. The region consists of seven NUTS-3 areas, Thessaloniki, Serres, Chalkidiki, Imathia, Pella, Kilkis and Pieria (see Map 7.1), and is the second largest Greek region in terms of population (about 1.7 million inhabitants according to the 1991 census, and 1.88 million according to 2001 census), whereas the population of the entire Greece was approximately 10.26 million in 1991 and 10.81 million in 2001. Between the census of 1991 and 2001 the population of Central Macedonia rose by 9.6%, a rise higher than the national mean (6.9%). The major urban centre and capital of Central Macedonia is Thessaloniki, which is the second most important Greek city. According to the 1991 census the population of the Thessaloniki Area was about 750,000 inhabitants, whereas that of the county of Thessaloniki (NUTS-3) was approximately 945,000 (790,000 and 1,057,000, correspondingly, according to the 2001 census).

Map 7.1: The region of Central Macedonia



The main industries were textiles, plastic-chemicals, food-beverages and clothing. In 2003, the region's per capita GDP (PPS) was 17,110 euros (83% of the EU-25 average), with Thessaloniki and Chalkidiki being the richest NUTS-3 areas having a GDP per head equal to 90.3% and 89.5%, correspondingly, of the EU-25 mean. In 2003, the region produced 17.6% of the country's GDP (the second largest contributor after Attica), 18% of the national agricultural produce (first in the country), 20% of the manufacturing production (second in the country) and 18% of services (second in the country).

The unemployment rate in Central Macedonia was 9.2% in 1992 and increased to 11.5% in 2002 (ESYE [www.statistics.gr]). During the period 1999-2011, only from 2006 to 2009 (the starting year of the big crisis) was the unemployment rate was in single figures in the region (Eurostat⁹). Female unemployment was at least double than that of men throughout the whole period 1988-2011. There were no big fluctuations during the time in each category (total, men, women), whereas the rate was sharply increasing in all cases in 2010 and 2011 following the current crisis. During the eight years period 1988-1995, LTU, that is being unemployed for over 12 months, made its mark as a basic characteristic (43.14% in 1988 and 42.93% in 1995 as percentages of total unemployment, with significant fluctuations), reaching 51.7% in 1997 and slightly dropping to 51.57% in 2000 (LFS). During the period 1999-2009

⁹ Available online at http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database [accessed at 6 April 2013].

the LTU rate in Central Macedonia reached its peak in 2004 (6.44%), whereas the problem became more acute in 2010 and 2011, during the second and third year of the current severe economic and social crisis, with the proportion of LTU being 7% and 10.63%, respectively. However, the same upwards trend was not observed concerning LTU as a percentage of the total unemployment (57.54% in 2003 and 54.38% in 2011) (Eurostat¹⁰).

By 1997, 19.6% of people in employment were working in the primary sector, 25.6% in the secondary sector and 54.8% in the tertiary sector, while the respective national percentages were 19.8%, 22.5% and 57.7% (the distribution of employment in the region according to 1992 statistics was as follows: agricultural sector 24.8%, industrial sector 30%, tertiary service sector 45.2%). Compared to the EU average, the region had a lower percentage of the population in active employment (44.8% and 41.3%, correspondingly) and also a substantial difference in terms of the distribution of occupations (EU 1992: agricultural sector 7.6%, industrial sector 33.2 % and tertiary service sector 59.2% - Eurostat, 1997). The distribution of people in employment between men and women (63.2% against 36.8%) was similar to that of the country's total. Central Macedonia was a very productive region hit by de-industrialisation that shifted to services, but experienced dramatic increases in unemployment. This was not only the case during the period under investigation, but also during the 2000s and even more from 2009 onwards following the unprecedented economic and debt crisis in the country, for unemployment in this region continued on an upward trend.

7.2.1 Unemployment and educational level in Central Macedonia

The National Statistical Service of Greece (ESYE) did not provide detailed data at regional level for 1990 on educational qualifications and unemployment (as in *Table 7-1*). Despite women increasingly accessing higher education, almost on a par with men, they were still experiencing higher rates of unemployment.

¹⁰ Available online at http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database [accessed on 26 January 2013]

Table 7.1 Level of education and unemployment by gender in Central Macedonia for 1995 (%)

Level of Education	1995		
	Total	Males	Females
A. Post-graduate degree	3.58	4.77	0.00
B. Post-secondary education	12.38	7.18	18.40
B1. University	10.38	7.00	14.59
B2. TEI-KATEE	13.87	2.94	24.64
B3. Student in higher education	10.03	16.72	0.00
B4. Other post-secondary	21.16	11.51	29.87
C. Higher secondary	12.90	8.89	18.72
C1. General Lyceum	12.12	7.86	18.01
C2. Technical Lyceum	21.33	17.88	30.00
D. Lower Secondary	11.26	7.45	21.41
D1. Foreman's certificate	7.69	3.88	25.95
D2. TVS	12.81	9.77	25.80
D3. Lower TVS	8.08	8.88	0.00
D4. Gymnasium	12.05	7.50	21.15
E. Primary education	7.24	5.06	11.18
F. No school certificate	6.08	4.08	9.38
TOTAL	10.08	6.61	15.69

Source: LFS (processing of data)

In 1995 (see *Table 7-1*), those at the two extremities of the education scale, that is, those with post-graduate qualifications and those with no education at all, were generally at little risk of finding themselves unemployed (3.58% and 6.08% respectively, compared to the 10.08% that was the average for the population as a whole). Those who had completed primary school also displayed low levels of unemployment (7.24%). By contrast, the rate for those with post-secondary qualifications was higher (12.38%) than the average, while those who had completed lower secondary level were slightly worse off (11.26%). The highest rates of unemployment were registered by those with a general secondary level of education along with those with secondary and further vocational qualifications. More specifically, the unemployment rate for graduates of technical lyceums was 21.33%, that was, more than double the average and the figure was fairly high for graduates of TEI (13.87%).

In the labour market, males and females with post-graduate and university degrees appeared to occupy more secure positions and to face less risk of remaining unemployed than those unemployed with higher technical education qualifications or simply a middle school

level education, in 1995. The unemployment rate among males with just rudimentary education, which paradoxically was lower (in 1995) than for those with university degrees, might be due to the fact that when the former lost their jobs they were more likely to become discouraged and withdraw from the labour market than those unemployed with a greater investment in education. This interpretation is supported by their comparatively low rate of participation in the labour force (LFS). The same was true for females with low levels of education, since they were less strongly tied to the workplace owing to the different gender roles. If they tried to get a job, they faced a labour market over-supplied with unskilled labour and often would be passed over in favour of males.

7.2.2 Vocational training programmes in Central Macedonia

In the region of Central Macedonia vocational training was organised mostly as in Greece as a whole. The distinction between initial and continuing training was purely functional for administrative reasons. Initial training was partly the responsibility of the Ministry of Education, while CVT came under the Ministry of Labour. *Table 7-2* presents the various forms of training prevailing in Central Macedonia in the 1990s.

Table 7.2 Forms of vocational training in Central Macedonia

FORM OF TRAINING	WITHIN THE FIRM	OUTSIDE THE FIRM	MIXED FORMS OF TRAINING
INITIAL TRAINING		<ul style="list-style-type: none"> - Technical schools - Technical lyceum - Institutes for vocational training - Higher technical institutes - Universities - Private schools 	<ul style="list-style-type: none"> - Dual system
CONTINUING TRAINING			
a. Training for advancement	<ul style="list-style-type: none"> - Training Department - <i>Ad hoc</i> training 	<ul style="list-style-type: none"> - Tertiary education - Specialised vocational schools - Public schools - Short-term courses 	<ul style="list-style-type: none"> - Intervention of chambers and organizations - Intervention of regional authorities
b. Training for re-skilling			

Source: Dedoussopoulos *et al.*, 1995.

The most popular training courses in both CSFs were those of informatics implementations and new technology to a variety of branches of economic activity and office automation. Also, the training programmes who formed a job-tool, namely for specific scientific categories like economists and engineers, as well as the courses of management, marketing, computerized accounting, tax issues, etc. The graduates of programmes of very specialized courses had a comparative advantage in relation to the rest of trainees, because their curriculum was specific, technical and very specialized e.g. finance and computers for economists, CAD-CAM systems for engineers, office automation, etc. (EKOM, 1994). This was also because the Universities did not offer a technical education but more a theoretical one, in contrast to the Technological Educational Institutions (TEI) which were more oriented to the labour market.

In the CSF-1 only a few programmes were scheduled exclusively for the unemployed. In the overwhelming majority of courses the workers followed the lectures together with the short-term or long-term unemployed or people threatened by the dole-queues (T.Q.M., 1994). On the contrary, in the CSF-2 (1994-99) the courses for the unemployed were separated from those of workers. Regarding the process of selection of the unemployed and the rest of participants by the colleges, this was mainly based on interview and their educational level, the duration of unemployment, as well as their relation to the teaching subject. Selecting the most suitable trainees for each course was a problem, also because the clientelistic relations were involved in that process (BCS-SVVE, 1998).

7.2.3 The bureaucratic behaviour of the officials in the field of training

Law 1622/86 introduced the regional division of the country into 13 regions; the institution of the Secretary General of the region and that of the Regional Council. However, possibilities for intervention through the use of regional instruments remained very limited. For instance, during the preparation phase of the national branch of the CSF, the role of the regions was only that of opinion giving, despite these projects being aimed at delivering a regional impact. As for the monitoring of their materialisation, there was no such regional competency (Spanou, 1996). Regarding community initiatives, the degree of Regional Council participation differed from case to case. In the best examples, the council was

activated so as to prepare proposals, but the final decision lay with the central agencies.

The major function of the Secretary General of Central Macedonia was, and still is today, to implement and monitor the regional Multi-fund Operational Programme (MOP) of the CSF. This function involves the region taking responsibility for the ESF sub-programme, which is the major source for the co-financing of a large number of training activities. The region's training activities pertained to estimating training requirements, co-ordinating and selecting different proposals for ESF co-financing put forward by the various training agencies and preparing the list of priorities for approval by the Regional Council. The relevant Ministry of Labour departments co-operated closely in the implementation of the regional ESF sub-programme. Special mention should be made to the ESF Training Support Programme in Central Macedonia. During the first CSF of 1989-93, more than 10,000 people (1.5% of the labour force in 1990 and 1.43% in 1993) were trained each year (OAED data). However, the entire chain from the design to implementation of ESF programmes was totally deregulated without any specified criteria for either the implementing agencies, the trainers, the trainees, or the content and results of the programmes (Kafkalas *et al.*, 1995).

According to Dedoussopoulos *et al.* (1995), the particularity of the Greek experience lies in the fact that training policy was inspired by the EU as well as being subsequently funded by it. However, the ESF failed as a springboard for the modernisation of the official system of technical and vocational training, thus catering for the needs of the economy. It should be noted that owing to the multiplicity of its forms and the institutions involved in vocational training statistical measurements regarding performance were scarce. Those data that were available provided poor informative value owing to substantial time and content gaps. These scholars recommended that this situation should be addressed before any attempts to construct an effective monitoring and evaluating framework was put in place (*ibid*).

A study carried out by Panteion University-PLA.NE.T. A.E. (1993), regarding the operation of the Regional Council of Central Macedonia (established in 1988) in the field of training, led to the following general conclusions:

1. The overall programme monitoring and control process was limited essentially to accounting.
2. There was no process of *ex post* evaluation of training actions. The decisions of the Regional Council were based neither on research data on labour market tendencies and demand for skills nor on objective assessment of the reliability and capacity of the various bodies delegated to carry out vocational training

programmes.

Moreover, there was no process for *ex post* evaluation of:

- a) The subject matter of training;
- b) The professional capacity of the instructors;
- c) The value in the job market of the comparative advantage acquired by trainees completing the programme, or;
- d) The rate of absorption of trainees by the job market.

Training actions were not integrated into a detailed framework of guidelines and policies at either the national or the regional level. Their study revealed that problems were created regarding linking of programmes to the particular requirements of the local labour market owing to the division of responsibilities and financial resources among such a large number of institutions. They also highlighted the fact that there was no unified national system of vocational training in the country and those programmes chosen were generally not specialised (PEEKA, EL.KE.PA.). The lack of direction was related, to a great extent, to the central administration, but was mainly a general consequence of the mentality underpinning the implementation by institutions, which had not understood the necessity for linking the programmes with the requirements of the labour market (Panteion University-PLA.NE.T. A.E., 1993).

Lists of supported programmes were provided by the Ministry of Labour at national, regional and local levels. The regions and various agencies wishing to buy or sell training courses would put forward proposals in advance in accordance with these lists and the selection was made. The approved KEKs were invited to apply to provide the different courses on the lists. Then, the course was offered and demand co-ordinated by the successful applicants. However, the activity of training agencies did not amount to institutional participation in the decision-making process, but rather, only during individual stages of this policy formulation, connected with either the implementation or the financial administration of the programmes. Thus, the status and the role of the region as a territorial unit in the decision-making process remained inferior, since it was not in a position to hire its own staff, while at the same time the allocation of financial resources - the only function in which any upgrading had been achieved - was often essentially under the control of the services of the Ministry of National Economy (Getimis and Gravaris, 1994).

A fundamental conclusion is that the training agencies lacked a regional dimension. The competencies remained concentrated at a central level, while the role of the regional and prefectural institutions was subsidiary. The entrepreneurial associations and firms were not

involved in the decision-making processes regarding the allocation of projects and the setting up of community or other programmes in which they were active. Moreover, the manner of execution of a programme was at the complete discretion of each institution, provided it came within the contract (e.g. regulation that governed it). In the framework of activation of the training programmes the training agencies (central, regional, prefectural, local level) collaborated between themselves. These collaborations, however, did not have a remit to cover any substantial matters, being mainly concerned with the updating, approval and financing of programmes. More substantial were the collaborations between the entrepreneurial associations and firms that concerned the majority of the cases from the joint fulfillment of programmes, despite which, there were still problems of procedure and co-ordination between the two (Getimis *et al.*, 1994).

Co-operation between the administrative training institutes and the entrepreneurial associations and firms appeared slack (due to the centralized functioning of the training agencies as well as the lack of organization and personnel in the entrepreneurial associations and firms). The involvement of the regional organisations in shaping vocational training policy had a fragmentary and occasional character either because of deficiencies in the framework or because of real weaknesses in these organisations (e.g. OEE, TEE, and SVVE). It should be stressed that this imperfect shaping of collaborative networks and policies in the area of vocational training and retraining was largely due to the lack of real decentralisation of responsibilities both at the regional (NUTS-2) and county levels (NUTS-3) – (Getimis and Gravaris, 1994).

The main conclusion is that for both CSFs it was impossible to speak of a training policy as such, but rather, only of individual vocational training policies and programmes. This fragmentation existed not only at the level of policy implementation, where a whole host of institutions were active in this field, but also at the planning level (in the Central Administration), where, despite the centralised character of the decision-making process, vocational training policy fell within the spheres of competence of many different bodies. Precisely because of this centralisation, co-ordination between those bodies assigned the responsibility for training was rendered exceptionally difficult, if not impossible, because each one was responsible to its own clientele. The next section and subsection deal with the region of Attica.

7.3 The region of Attica

The region of Attica (NUTS-2), which is geographically situated in Central Greece, is the one and only region-county (NUTS-3) in the country. According to the 1991 census its population size was approximately 3.5 million, in other words, three out of 10 Greeks lived there (about the same in the 2001 census). The capital of the region is the city of Athens, which is by far the most important Greek city in economic, administrative and political terms. In 1988, Attica's GDP was equal to 61% of the EU-12 average (58% for Greece as a whole), whereas in 1996 the region improved its position to 77% of the EU-15 mean (68% for the country as a whole), which rose to 86% of the EU-25 mean in 2003 (80.9% for Greece as a whole). The region produced 37.4% of the country's GDP, entailing 2.7% of the country's agricultural produce, 35.5% of manufacturing and 42% of services (2001) - www.ypes.gr/attiki and (ESYE [www.statistics.gr]). A map of Attica is presented below.

Map 7.2: The region of Attica



From 1988 to 1995, there was an increase in the percentage of unemployed from 10% to 11.7% of the workforce (LFS). During the period 1999-2011, the unemployment rate was in single figures in Attica in most of the years only being higher than in Central Macedonia in 1999 and 2000 (12.7% and 12%, correspondingly for Attica) (Eurostat¹¹). Female unemployment was at least double than that of men in most of the years during the period 1988-2011. In general, there were bigger fluctuations during the time in each category (total, men, and women) in comparison to Central Macedonia, whereas the rate was sharply increasing in all cases from 2009 to 2011 following the current crisis. During the eight years period 1988-1995, LTU became a basic characteristic, as was the case in Central Macedonia. Whilst at the beginning of the period (1988) 45.4% of the unemployed remained so for over 12 months, in 1995 this situation applied to 50.9% (LFS). During the thirteen-year period 1999-2011, the LTU rate in Attica reached its highest levels in 1999 and 2011 (7.2% and 8.53%, correspondingly) and the highest LTU as a percentage of the total unemployment in 1999 and 2003 (56.54% and 57.23%, respectively) (Eurostat¹²).

7.3.1 Unemployment and educational level in Attica

As mentioned earlier on in this chapter, the ESYE did not provide detailed data for 1990 at the regional level on educational qualifications and unemployment (like that for 1995 in *Table 7-3*). As in the case of Central Macedonia, while education, at least at the higher levels, tended to be an equalising factor for the rates of male and female participation in the labour force, the same did not apply regarding the risk of unemployment, for females, when in the labour market, were more likely to be without jobs.

¹¹ Source: Eurostat (available online at http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database) (accessed at 6 April 2013).

¹² Eurostat (available online at http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database) (accessed at 9 February 2013).

Table 7.3 Level of education and unemployment by gender in Attica for 1995 (%)

Level of Education	1995		
	Total	Males	Females
A. Post-graduate degree	5.78	3.42	11.36
B. Post-secondary education	9.34	6.52	12.98
B1. University	7.46	5.44	10.33
B2. TEI-KATEE	10.17	8.00	12.58
B3. Student in higher education	9.76	8.46	14.31
B4. Other post-secondary	14.40	9.33	19.71
C. Higher secondary	14.30	9.82	19.74
C1. General Lyceum	13.79	9.26	19.04
C2. Technical Lyceum	21.97	16.05	37.97
D. Lower Secondary	13.28	10.49	21.92
D1. Foreman's certificate	8.76	10.01	0.00
D2. TVS	11.13	9.87	20.49
D3. Lower TVS	6.03	5.52	10.49
D4. Gymnasium	15.20	11.73	23.06
E. Primary education	10.21	7.53	16.05
F. No school certificate	11.95	12.21	11.54
TOTAL	11.69	8.43	16.85

Source: LFS (processing of data)

In 1995 (see *Table 7-3*), it can be seen that those with university qualifications fared better in the jobs market than other cohorts, with one exception to this being those completing lower TVS programmes. Those who had only completed primary school or had no certification also were more able than many others to find work. The highest rates of unemployment were registered by those who had completed general secondary education and those with secondary and further vocational qualifications. In particular, the unemployment rate for graduates of technical lyceums was 21.97%, almost double the average. Education did not manage to reduce the high levels of unemployment among females, for in 1995 even those with postgraduate degrees were more than three times as likely to be unemployed as their male counterparts (11.36% and 3.42% respectively). However, both males and females with post-graduate or university degrees appeared to occupy more secure positions and to face less risk of remaining unemployed than those young people of their respective genders with higher technical education qualifications or simply a middle school level education. Finally, in 1995, the unemployment rate among males and females having completed just primary

education or having no qualifications was high than for those with university degrees, in contrast to the situation in Central Macedonia (see *Table 7-1*). The next section compares the unemployment and educational inequalities in Greece and the two NUTS-2 areas under examination.

7.3.2 Unemployment and educational inequalities in Central Macedonia, Attica and Greece

As a percentage of the total non-school population and in all NUTS-2 regions of the country, women were more likely to have failed to complete primary or middle school or not to have attended school. As *Table 7-4* shows, failure to complete gymnasium was a characteristic of a very high percentage of the inactive population (72.6% for the whole country), and to lesser extent, but still notably high, of the unemployed (28.8%). Moreover, regarding those failing to complete or even attend primary school, 27.8% were inactive, 3.4% unemployed and only 7.4% were employed. It is interesting to note that these findings are virtually the same, with minimal variations, for both men and women. According to *Table 7-4*, for those who had not completed gymnasium education, the situation in Central Macedonia was worse in comparison to the whole country for the employed and those out of the labour force, but better in the case of the unemployed. By contrast, this region performed like the whole country when it came to those who had not completed primary school. Attica's performance was better in all cases in comparison to Central Macedonia and the entire country in relation both the employed and those outside the labour force, but not with respect to the unemployed.

Table 7.4

Percentage of those aged 14 and over outside the education system who: a) did not complete gymnasium, b) did not complete primary school (Greece) by region, gender and employment status in 1991¹

Region	Gender	Did not complete Gymnasium ² %			Did not complete Primary School ³ %		
		Employed	Unemp loyed	Outside labour force	Employed	Unemp loyed	Outside labour force
Attica	Total	30.1	26.9	58.9	3.4	3.6	18.4
	Males	32.4	27.6	54.6	3.3	4.4	15.4
	Females	25.7	26.5	60.7	3.5	3.1	19.6
Central Macedonia	Total	52.7	25.9	76.6	7.2	3.5	29.4
	Males	53.7	31.8	77.5	6.9	3.8	31.7
	Females	50.9	21.8	76.3	7.9	3.3	28.5
Total Greece	Total	49.5	28.8	72.6	7.4	3.4	27.8
	Males	49.9	31.2	71.4	6.2	4	26.3
	Females	48.7	27.3	73.1	9.7	3	28.4

(1) Ratio of the whole set of persons of that age group and sex to the population of the region.

(2) Includes those who did not complete primary school, as well as those who never went to school.

(3) Includes those who never went to school.

Source: LFS, 1991 (as found in Chryssakis, 1996).

From the point of view of the development of human resources, according to Chryssakis (1996), the findings reveal two key problems:

First, the high incidence of those without having completed compulsory education (nine years) among the working population (about 50% of the total in Central Macedonia and the whole of Greece, but 30% in Attica) means that large numbers of working people were on the borderline of functional illiteracy. This, of course, significantly limited the effectiveness of training efforts addressed at the working population, in accordance with the dictates of the restructuring and upgrading of productive processes on the national and international level. The result was to exclude, on the social level, the already educationally excluded unemployed.

Third, the extremely low level of education of the economically inactive population, both males and females, who in their overwhelming majority operated on the border of functional illiteracy (more than 70% did not complete gymnasium and about 29% did not complete primary school in Central Macedonia and the entire country, with the corresponding figures for Attica being approximately 60% and 18%), underlined the need for intervention in this direction too, principally on the educational level. There are indications that this category

included those who could be characterised as being discouraged workers (Chryssakis, 1996).

7.4 Conclusion to the chapter

The main conclusion of the analysis undertaken in this chapter is that there are no regional variations in comparison to the entire country concerning the organisation of training activities and skills matching mechanisms. I now proceed to discuss the literature on the CPE of VET systems to situate the Greek case. Then, I will explore how well does Greece fit the Southern European model using secondary data. Also, I will consider the employment policies in Greece, the EES and reform capacity for that nation, as well as discuss some macro-economic data on the Greek economy and labour force from secondary sources.

CHAPTER 8: MACRO-LEVEL ANALYSIS

8.1 Introduction

Having presented the findings at the micro and meso levels regarding the Greek labour market for the focal period, 1988 to 2000, obtained through my empirical calculations as well as secondary data analysis, as explained previously, it is important to contextualize these by considering macro-level labour market policy. That is, it is considered beneficial to outline the wider macro-economic and labour market context of Greece as a part of the EU during this period. I aim to demonstrate that although EU funded training policy in Greece has been taking place since 1988, there has been and still is, little or no impact on the matching between the supply and demand for labour. The following macro-level policy and macro-economic conditions analysis addresses the questions “To what extent did the ALMPs in Greece, in particular the policies of vocational training, integrate EU-funded training in their skills strategy? To what extent was any (in)effectiveness of ALMPs related to the characteristics of the Greek political economy?”. I also consider whether approaching Greece as typical case of the Southern European political economy can help us understand this low-skills equilibrium. First, I discuss the macro-economic data for Greece and then the causes of unemployment at the EU level, as well as the role of ALMPs in Greece and the EU. An analysis of unemployment and skills in Europe and Greece follows, as well as a discussion on the Greek political economy and that nation’s reform capacity. Finally, I follow a critique of the EU’s model for financing vocational training in the Greek context and link my research to the present economic situation in Greece. The next section and the subsequent sub-section provide information about the macro-economic data of Greece from secondary sources.

8.2 Macro-economic data for Greece during the period under investigation

As already mentioned, according to the 1991 census, the Greek population was approximately 10.26 million (10.81 million according to the 2001 census). In 1988, the nation’s GDP was equal to 58% of the EU-12 average, whereas by 1996 it had improved its

position to 68% of the EU-15 mean (OECD 1998b, Economic Outlook). Moreover, by 2008 the Greek GDP (PPP) per capita was 80% of the EU-15 (World Economic Outlook Database, April 2009, IMF). Also, according to the UN classification of human development index released in December 2008, covering the period up to 2006 - Greece was ranked 18th in the world and 11th in the EU. Central Greece, Southern Aegean and Attica were the richest regions since 1991 in per capita GDP [ESYE (www.statistics.gr)]. Greece (from 2000 onwards) and Ireland (from the early 1990s onwards) had the highest GDP growth rates in the EU-15 (Eurostat) until the current economic and financial crisis. During the period under investigation, the expansion of the service sector and the reduction of agricultural sector continued and by 2008, roughly 66% of the workforce in Greece was involved in the service sector, 23% in industry, and 11% in agriculture (ESYE, various years).

8.2.1 Unemployment in Greece during the period 1975-2002

Unlike other EU countries, where salaried employment was the predominant form of labour relationship during the period under study, in Greece, wage-earners accounted for approximately 50% of the labour force (salaried employees represented 51.43% of the total number of working population in 1989 and 53.24% in 1993 - LFS), the self-employed 29.8%, employers 5.5% and unpaid family members 14.7% (LFS, 1992). The definitions of unemployment used to collect data for the National Statistical Service applied to salaried employment, while in rural districts (where self-employment is the rule) recording the number of unemployed was very difficult (ESYE, 1992). As a result, the official unemployment figures generally under-estimated the reality regarding the phenomenon. Also, the supportive role of the family in Greece, as in other Southern European countries, means that some who would register as unemployed were able avoid doing so and often there is no point in younger family members signing on, because they would receive no state benefits, given that there was minimal state support for first time job-seekers.

The unemployment rate¹³ climbed from 7.7% in 1988 to 11.5% in 1998¹⁴ (see *Table 8-1*). Unemployment in Greece was a structural phenomenon from the mid-1990s onwards of

¹³ The percentage of unemployment is characterized by an augmentative tendency from 1988 to 1998 with the exception of the two year period 1989-1990, during which it shows a temporary decrease.

¹⁴ On the basis of Eurostat figures, unemployment in 1998 was 10.8% (1997=9.6%). However, on the basis of the definitions used up until 1997, the unemployment rate in 1998 was 11.5%.

considerable dimensions and with a particular dynamic. According to Eurostat data, the unemployment rate in the EU-15 increased from 8.2% in 1991 to 10.9% in 1996 (Eurostat, Unemployment in the EU, 1997). The rate in Greece rose above the EU average for the first time in 1998 and continued increasing, and the gap was widening, since the EU average was falling (IN.E./GSEE-ADEDY, 2000). The picture provided in *Table 8-1* did not represent the true situation, since the unemployment recorded by the LFS fell far short of the reality for the aforementioned reasons. In addition, unemployment levels in the '70s are not entirely comparable with later periods as prior to 1981 LFSs were carried out only in the country's urban and semi-urban areas.

Table 8.1 - Unemployment rates for the whole of Greece (1975-1998)

	Population (thousands of persons)	% of labour force	Unemployment rate
1975	9046	98.48	1.5
1976	9167	98.15	1.9
1977	9309	98.31	1.7
1978	9430	98.17	1.8
1979	9548	98.10	1.9
1980	9642	97.25	2.8
1981	9730	96.05	3.9
1982	9790	94.16	5.8
1983	9847	92.04	8.0
1984	9896	91.83	8.2
1985	9934	92.19	7.8
1986	9964	92.64	7.4
1987	9984	92.61	7.4
1988	10004	92.33	7.7
1989	10039	92.54	7.5
1990	10089	92.98	7.0
1991	10200	92.35	7.7
1992	10314	91.33	8.7
1993	10368	90.34	9.7
1994	10426	90.39	9.6
1995	10478	90.00	10.0
1996	10531	89.67	10.3
1997	10583	89.75	10.3
1998	10636	89.23	11.5

Source: LFS; some definitions were changed in the years 1981-1983.

Despite a reduction in 2001 in the rate of unemployment for the second year running, it stayed the highest in the EU-15 at 10.5% apart from Spain (10.6%) and was the fourth

highest in the OECD, lower only than Slovakia (18.8%) and Poland (16.1%) (Seferiades 2006).

Gender and age group seem to have been and remain significant determining factors affecting the probability of someone becoming unemployed. It was common knowledge that females and the young were much more vulnerable to unemployment than older persons. The meagre payments for the unemployed could hardly be considered as providing incentives for someone to remain so (Bouzas and Ketsetzopoulou, 1998; Papadopoulos, 2006). It is reasonable to accept that the problematic matching of the unemployed with jobs made it more difficult for the young unemployed to find work, as they were inexperienced and therefore, had to try longer before they could find a job (Petrinioti, 1999).

Table 8-2 indicates that despite years of EU funding of training, Greece had the highest unemployment rate for both the EU and Euro area averages in 2002. The picture alters when unemployment is broken down according to gender. The unemployment rates of Greek females were higher than the respective EU averages during the introduction year of the euro (2002), but the opposite was the case for the Greek males.

Table 8.2 Unemployment rates by gender and age

Gender/geographical area - year/age		2002	
		Aged 15-24	Total
Total	European Union	18.0	8.9
	Euro area	16.0	8.4
	Greece	26.8	10.3
Males	European Union	17.9	8.3
	Euro area	15.3	7.5
	Greece	19.9	6.8
Females	European Union	18.1	9.7
	Euro area	17.0	9.7
	Greece	35.3	15.7

Source: Eurostat

(http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database)

The LTU figure increased by as much as 8.5% in 1999, whereas the EU-15 showed a 10.3% decrease (OECD, 2001a; Eurostat, 2001, 2002). The number of people who remained unemployed in Greece over a long period of time (for at least 12 months) kept increasing at a fast pace. Whereas in 1982 only one out of five of the unemployed was long-term, by 1990 this stood at one out of two (LFS). The increase in LTU was even more remarkable if it is charted from the beginning of the 1980s to 1996, when it rose from 33.4% to 58.3% of the

total unemployed (LFS - see *Table 8-3*). Finally, in all years female LTU was much higher than the corresponding rates for males.

Table 8.3 LTU* as a percentage of the total unemployment by gender

Greece			
Year	Total	Males	Females
1988	47.1	37.2	53.7
1989	51.2	40.9	57.7
1990	50.2	41.0	56.0
1991	46.6	36.8	53.2
1992	49.3	37.9	56.7
1993	50.1	40.1	56.6
1994	52.1	42.5	59.0
1995	52.4	43.0	59.1
1996	58.3	49.2	63.6
1997	55.7	45.8	62.2
1998	55.0	45.1	61.6
1999	55.3	48.5	59.7
2000	56.7	49.7	61.3
2001	52.8	46.8	56.8
2002	52.6	47.2	56.1

* For a period equal to or greater than 12 months.

Sources: LFS until 1996; Eurostat from 1997 onwards. ¹⁵

8.3 Macro-level of analysis: Policy and the causes of unemployment

In this thesis, the term macro-level refers to the broader national and supra-national regulatory frameworks as well as the politico-economic institutions and policies. Thus, in this section I offer an overview of groups of literatures developed from the perspectives of the CPE, theories of the structural aspects of EU unemployment and the importance of training/skills in these literatures. These theories set out to explain what is happening with skills/training and the labour market as well as how/why policies may succeed or fail. The following subsection discusses the role of ALMPs internationally.

¹⁵ Available online at http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database [accessed on 9th February 2013].

8.3.1 The role of active labour market policies

Before proceeding, it is important to clarify what is meant by ALMPs. Here, the OECD's standard typology of ALMPs into five categories is adopted (OECD, 1993):

- temporary job creation;
- training;
- help with job-hunting;
- wage subsidies for regular employment; and
- aid for people beginning their own businesses.

The OECD made the claim that when ALMPs were planned and integrated into the framework of a strategic activation of the unemployed, they would improve the future prospects of employment and increase the income of the participants of those programmes. Under this framework, EU policy emphasised the mutual influences (or co-operation) between active and passive employment policies (CEC, *Employment in Europe*, 2006:146). On general lines, the references to the need for co-operation between passive and active employment policies were made because greater flexibility in the labour market was sought, thereby encouraging the transition “from job security towards employment security” (CEC, *Employment in Europe*, 2006:158).

To some degree, the fact that during the period under investigation ALMPs aroused increased attention was because they were seen as a way of combating unabating unemployment in Western Europe. The general EU view was that previous labour market policies had provided disappointing results in the fight against unemployment. Regarding this, the traditional demand stimulation turned out liable to, first of all, raise inflation but do little to increase employment, so other structural reforms on the supply side were adopted aimed at sweeping aside certain labour market rigidities. These, however, were not easy to implement owing to vehement workers' opposition and where progress was made this was very slow (Calmfors, 1994). The most important target of ALMPs is normally considered to be increasing the effectiveness of the matching process. Through the amelioration of the labour market functioning in different ways, ALMPs aim to get the unemployed back into employment. Governments were urged by the 1994 OECD jobs study to “strengthen the emphasis on ALMPs and reinforce their effectiveness” (OECD, 1994c). A large number of

these programmes, though, were not expected to prove beneficial by micro-econometric studies (Boone and van Ours, 2004).

ALMPs can serve two essential purposes (Calmfors, 1995a): first, helping the unemployed at times of recession to keep up their skills or to acquire new ones. It was anticipated that they would be beneficial to the whole labour supply, a view that was especially prevalent during the time period under investigation when the excessive supply of labour was generally seen as the cause of the unemployment problem (see e.g. Layard *et al.*, 1994, or Wyplosz, 1994). The other somewhat old-fashioned view of ALMPs is that they constituted a way of dealing with a lack of labour market equilibrium by altering labour supply to being demand led by employers. They were first perceived this way in Sweden and the U.S. in the 1950s and 1960s (OECD, 1990b). Moreover, regarding the debate on how to develop a skilled labour force, the ALMPs perspective also aroused interest during the period under study (e.g. Jackman, 1994; OECD, 1994b; Goux and Maurin, 2000).

However, traditional interpretations at the meso-level failed to explain the increase in unemployment, nor the reason why it was so marked in the EU area, especially in the Southern European states, when other OECD nations (i.e. U.S. and Japan) with comparable labour market structures and macro-economic indicators did not experience these upward trends (OECD, 2011b). Thus, it would appear reasonable to assume that a number of factors working at the same time led to the persistence of unemployment. This leads to the need for more comprehensive explanations at the macro-level. This is because the meso-level (how training is organised, the function of OAED in terms of effectiveness) is influenced by the macro-level (macro-economic policy and political economy), since the organisation of VET system constrains or enables individuals to pursue their skills formation and interacts with the labour market, either reproducing its characteristics (e.g. dualisms) or changing them. Also, policy and the overall political economy interact with institutions and the organisation of the VET system as well as the labour market. That is, VET systems can be facilitating of new policy directions or obstacles to achieving policy objectives. The following subsection discusses the causes of European unemployment in the 1990s and even later.

8.3.2 The causes of EU unemployment (early 1990s to mid-2000s)

From the mid-1980s onwards, the reasons for persistent European unemployment remained a puzzle. After the second oil price shock, it showed no sign of receding for several

years, even though European economies were growing. Traditional theories of the business cycle could not explain why the labour market was taking so much time to adjust, and identifying the reasons for the continuing high unemployment became a major focus of attention (Gross, 1996; OECD, 2011b). Indeed, western European economies have experienced high and persistent unemployment rates since the 1980s or 1990s (see OECD, 1991, 1998a, 2000b) and the high incidence of youth unemployment and long-term unemployment (LTU) was widely regarded as one of the distinct and most serious problems of European labour markets (Machin and Manning, 1999). OECD reports kept underscoring the difference between the U.S. and European labour markets, whereby youth unemployment (15-24 years old) and especially LTU were far less of a problem in the former than in the latter (OECD: 1998a: Tables B, C, G and 2000a: Tables C, G).

Out of the large body of literature devoted to European unemployment came two important concepts during the period under investigation: first, the flow approach to the labour market (see Nickell, 1982; Junankar and Price, 1984; Pissarides, 1985; Gross, 1993a, 1993b), and second, hysteresis or persistence of unemployment in its extreme form (see Blanchard and Summers, 1986; Cross, 1988). One body of literature has sought explanations for persistent unemployment by focusing on the supply side (CEC, 1994; OECD, 1994a, 1996b). For instance, supply-side policies, such as the New Deal in the UK, were criticised for their failure to take account of local demand-side conditions (Campbell and Duffy, 1992; Fine, 1998; Turok and Webster, 1998; Peck, 1999). Proponents of this perspective argued that greater understanding of demand-side factors, such as the role of employer expectations and practices was necessary (Blanchflower and Freeman, 1994; Shackleton, 1995).

Under the hysteresis lens, it was contended that unemployment did not change parallel to economic business cycles, but rather, remained on an ever higher level after an economic recovery. The existence of hysteretic unemployment was attributed to increasing "structural unemployment", whereby growing numbers of people who had been filtered out during a period of recession period were unable to return to the labour market, because their skills had become obsolete. Hence, many of them were not offered a job even in cases of increasing numbers of vacancies. It was believed by many researchers that large changes in unemployment, such as those observed in the 1970s and early 1980s in Europe, produced an hysteresis effect (Jackman *et al.*, 1990; Camarero *et al.*, 2006; Mohan *et al.*, 2007; Hoorelbeke, 2010). In this context, LTU was an important much discussed phenomenon, whereby it had been found that large increases in unemployment led to proportionally larger increases in its duration. According to Layard and Nickell (1987), in the British context, if

the long-term unemployed lose skills and the will to search for new job openings or relocate, the degree of mismatch between vacancies and unemployed workers increases, thus their search effectiveness falls. Jackman and Layard (1990) offered evidence that LTU reduced the search effectiveness of workers. High unemployment was not, however, always persistent. Identifying the circumstances under which persistence was likely to arise was crucial. The main issue was whether hysteresis was the result of specific labour-market structures, the presence of unions, or whether it was itself the result of adverse shocks, which by increasing unemployment triggered insider-outsider dynamics (Blanchard and Summers, 1986). The insider-outsider theory holds that there are conflicts of interest between insiders and outsiders in the labour market. Insiders are current employees whose positions are protected owing to labour turnover costs, whereas outsiders are unprotected, being unemployed or with jobs in the informal sectors of the labour market.

As mentioned earlier, the progressive rise in unemployment in the EU has attracted considerable attention and debate from economists, and numerous competing explanations and policy prescriptions have been advanced (see, for example, Layard *et al.*, 1994; Bean, 1994; Alogoskoufis *et al.*, 1995; CEC, 1995). Much of this discussion has focused on the different unemployment experience of Europe compared to that of the U.S. One argument was that while both continents have experienced the same shifts in demand and technology, labour markets adjusted quite differently in the U.S. to those in Europe (see for example, Krugman, 1994a; Bertola and Ichino, 1996; Bertola, 1999; Sorrentino and Moy, 2002). However, according to Krugman (1994a, 1994b), compared to the U.S., Europe suffered from various economic, social and institutional rigidities, which prevented its labour markets from adjusting to rapidly changing competitive and technological conditions. As a result, net job-creation rates in the EU have been far lower, and unemployment much higher, than in the more 'flexible' economy of the U.S. Others, however, suggested that higher unemployment in Europe was due not to demand or technology shifts, but rather, to increases in aggregate wage pressure that emerged after the oil shocks of the early 1970s (Jackman, 1995; Jackman and Bell, 1996; Jackman *et al.*, 1997). On the whole, it would appear from the empirical data that there is a tenuous link between wage moderation and long-run employment increases (Meager and Speckesser, 2011).

From a different perspective, others have argued that Europe's high unemployment had in large part been the result of the shift from full-employment demand management to the tight monetary and fiscal policies followed in many of the member states since the early 1980s (Baddeley *et al.*, 1998). Moreover, the loss of national exchange-rate autonomy under

monetary union meant that governments had been unable to restore the competitiveness of their economies by devaluation of their currencies. Joining the European Exchange Rate Mechanism (ERM) or a Single European Currency was thus likely to be especially detrimental for a member state's lagging and low-productivity regions (see Dignan, 1995).

Concerning the impact of unemployment benefits on rising unemployment rates, various empirical studies have arrived at contradictory findings. After carrying out a survey of the micro-econometric labour-supply literature, Phipps (1996) concluded that unemployment insurance (UI) did not increase unemployment by an amount sufficient to warrant the extreme concern exhibited in recent policy debates. However, this is in contrast to the findings of other researchers (see Rosholm, 1999; Sianesi, 2001; Regner, 2002). Tatsiramos (2009) investigated the effect of UI both on unemployment duration and the subsequent employment stability for eight European countries using individual data from the European Community Household Panel Survey (ECHPS, 1994-2001). The countries analysed were distinguished between those with relatively generous UI systems (Denmark, France, Germany), the Anglo-Saxon countries (Ireland and UK) with flat rate payments and relatively short benefit duration, and the Southern European countries (Italy and Greece), in which the system was rather underdeveloped. Increased employment duration for recipients was found for the first group of countries as well as Spain and these provide more generous benefits compared to the southern group. These findings are in line with those theories suggesting there is a matching effect of UI, like the job search theory.

Finally, concerning the impact of wages, the literature during the reference time period of this study also exhibits contradictory findings. It is fact that in the UK and the U.S., since the early 1970s, wages have become more unequal to a significant extent, whereas nations with high unemployment have experienced lower inequality. It was suggested that in all nations, the demand for skilled workers has gone up more than that for unskilled workers and more than the supply has gone up. It was claimed that the labour market in Europe, which is incapable of adaptation, has transformed this change into more unemployment. In the U.S., however, where the labour market adapts, this change has been turned into greater inequality. Lastly, this change accounts for most of the increase in European unemployment compared to that in the U.S.

Wage inequality and its growth was studied in Davis (1992), Katz and Murphy (1992), Juhn *et al.* (1993), Goux and Maurin (1994), Card *et al.* (1995), Freeman (1995), Katz *et al.* (1995), Jiancai and Yu (2012), Jerzmanowski and Nabar (2013). According to a number of researchers (Nickell and Bell, 1995, 1996; Jackman *et al.*, 1996; Nickell, 1996),

skill shifts have accounted for only a tiny proportion of the rise in unemployment since the 1970s. Furthermore, there is no evidence that this proportion is lower in “flexible” countries, such as Britain, than in “non-flexible” ones (see Card *et al.*, 1995; Nickell and Bell, 1995, 1996; Jackman *et al.*, 1997). From this literature review, it is clear that there is no unifying framework that can explain what happens in labour markets. However, there does seem to be similar characteristics in those of the countries in Southern Europe. Consequently, the specific characteristics of Southern European individual political economies with their institutionally complementary systems of labour market policies, education and training and welfare policies emerge as the next level where our interest should shift in order to explain differences and similarities in the persistence of unemployment and the role of training in it. This is where the focus of this literature review now turns to in the next sub-section.

8.3.3 Comparative political economy, skills formation and Southern Europe

There has been a plethora of literature on CPE over the last twenty five years. At first, the discussion centred on the bipolar relation of Anglo-Saxon vs. Rhineland/Nippon capitalism (Albert, 1991; Dore, 2000). Hall and Soskice have been criticised for their contention (see Morgan *et al.*, 2005) that Southern European countries are ‘ambiguous’ cases belonging to neither of the two ideal types, thus excluding France, Italy, Spain, Portugal and Greece from either of their models (2001:21). They have pointed to the historical and institutional characteristics of Southern European political economies to justify their position. Specifically, these nations followed a different path to industrialisation, had a markedly long historical experience of authoritarianism and hence, late political democratisation. Moreover, they developed hybrid forms of welfare state arrangements where fragmented systems of social insurance, of Bismarckian inspiration, were supportive of the prominent welfare agent, the family (and in catholic Southern European countries, the Church). These aspects were difficult to integrate in the original VoC framework and hence, other authors attempted to expand it considerably.

Molina and Rhodes (2005) put forward a different model for the Mediterranean countries, that while based on that of Hall and Soskice, adds the concept of mixed market economies (MMEs). Despite employers and unions having tougher organisational structures in MMEs than in LMEs (like the U.S. and UK) they are less cohesive and find it more

difficult to clarify their interests than in co-ordinated market economies (CMEs). In particular, they have a problem maintaining autonomous co-ordination in collective bargaining and in delivering collective goods. Nevertheless, they succeed in rejecting reform, in fact, the political system is remarkable for its inability to deal with reform pressures. Furthermore, MMEs are hybrid systems: countries in Southern Europe that are characterised by high employment protection and low social protection. Hall and Soskice (2001), however, viewed the model differently, considering production and welfare to be two complementary institutions where the efficiency of one was greater because of the existence of the other (see Amable, 2003:6; Featherstone, 2008). Molina and Rhodes (2005), by contrast, believed hybrid of MMEs could perhaps be more capable of compromise and adaptation.

The debate about whether the Southern European nations' welfare states represent a distinct entity goes back to the early 1990s (Leibfried, 1992; Castles and Ferrera, 1996; Ferrera, 1996; Petmesidou, 1996; Gough *et al.*, 1997; Rhodes, 1997; Esping-Andersen, 1999; Andreotti *et al.*, 2001; Katrougalos and Lazaridou, 2003; Vasconcelos and Figueiredo, 2005), which has since been extended to include family models and care regimes (Jurado *et al.*, 1997; Trifiletti, 1999; Saraceno, 2000; Bettio and Plantenga, 2004). Research comparing gender inequality in the labour market, the family and the welfare state in Spain, Portugal, Italy and Greece, although finding similarities in relation to changes in the 'gender order' in the latter part of the last century (Gonzalez *et al.*, 2000), has failed to provide sufficient evidence of the Southern European 'gender regime'.

Whether Italy, Greece, Spain and Portugal represent a "fourth world of welfare capitalism" (Karamessini, 2007) or simply a subset of the welfare states of Continental Europe is contested. The latter have social security systems based on employment tenure and type of occupation, such that those without work receive minimum state benefits. Moreover, they lack strong labour market regulation and strong familism. The latter refers to the family as care-giver as well as welfare provider, with a male bread-winner being the focus of welfare protection (Esping-Andersen, 1999). Katrougalos and Lazaridou (2003) also consider the Southern European countries as a variant of the conservative welfare regime, but they stress that the main reason these differ from their Continental European counterparts, is because of their immaturity and relative inefficiency of their social protection system. At the other extreme, Leibfried (1992), Ferrera (1996) and Petmesidou (1996) have argued in favour of there being a distinct Southern European model of social protection and welfare, although each of these authors claims this on different grounds.

Gallie and Paugam (2000) having studied unemployment for different welfare regimes, subsequently classified Greece, Italy, Spain and Portugal as being of the familialist type. This was concluded through assessing different combinations of responsibility taken by the welfare state and the family aimed at providing for the unemployed. Much of the literature on the Southern European nations has pointed to familial actions common to these societies, including: pooling incomes, mobilising clientelism to obtain social benefits as well as public sector jobs, transferring home ownership amongst other things, geared towards supporting unemployed family members (Castles and Ferrera, 1996; Ferrera, 1996; Petmesidou, 1996). Further, family and family policy models as well as those relating to care regimes have provided support for the notion that Southern European welfare regimes are a distinct entity (Jurado *et. al.*, 1997; Trifiletti, 1999; Saraceno, 2000; Bettio and Plantenga, 2004).

Mingione (2002) highlighted these nations' labour market similarities in terms of the common political, social and economic features that they have evolved. Specifically, he pointed out that these are late industrialising countries in which the state has promoted the role of small and family enterprises by protecting the internal market and tolerating tax avoidance.

Amable (2003) classifies a wider range of national capitalisms, identifying five types:

- market-based (similar to an LME for Hall and Soskice, 2001);
- social democratic;
- continental;
- Mediterranean;
- Asian.

Table 8-4 offers a summary of Amable's Mediterranean type.

Table 8.4 The Southern European variety of capitalism according to Amable (2003)

Institutional

Area

South European capitalism

Product-market

competition

Price - rather than quality - based competition, involvement of the state, little 'non-price' co-ordination, moderate protection against foreign trade or investment, importance of small firms

Wage-labour

nexus

High employment protection (large firms) but dualism: a 'flexible' fringe of employment in temporary and part-time work, possible conflicts in industrial relations, no active employment policy, centralization of wage bargaining

Financial

sector

Low protection of external shareholders, high ownership concentration, bank-based corporate governance, no active market for corporate control (takeovers, mergers and acquisitions), low sophistication of financial markets, limited development of venture capital, high banking concentration

Social

Protection

Moderate level of social protection, expenditures structure oriented towards poverty alleviation and pensions, high involvement of the State

Education

Low public expenditures, low enrolment rates in tertiary education, weak higher education system, weak vocational training, no lifelong learning, emphasis on general skills

Sources: Amable *et al.* (1997); Amable (2000).

Social protection against unemployment improved throughout Southern Europe in the 1970s and 1980s, in particular in Spain and Portugal, but the benefits remained the lowest for the former EU-15. Moreover young first job seekers and those made redundant at the end of temporary contract received little or no payment in these countries, with the exception being Portugal. Those who gained the most from the social security system were those male

breadwinners temporarily or permanently made redundant after working for many years mostly in big firms (Karamessini, 2007).

Various actions to upskill in Southern Europe have been taken. In particular, tertiary education has been made available to rapidly increasing numbers of students, except for Italy with much slower growth. Notably, both, Italy and Greece have grown the numbers of youths completing upper secondary education. In Spain and Portugal, during the 2000s major institutional reforms in continuing training and accreditation of training skills and qualifications were made (Karamessini, 2007). As regards labour market structures of the four Southern European countries mentioned here, their similarities and some differences have been identified by numerous comparative socioeconomic studies as mentioned above in this section. From the debate summarised irrespective of whether there is a distinctive ‘Southern European social model’ the following similarities in the pattern of social reproduction in Southern European countries can be discerned:

- Persistence of relatively high shares of employment in agriculture until the mid 1970s in Italy and Spain and until today in Greece and Portugal;
- Much higher self-employment rates than the EU average;
- Low female employment rates in all countries except Portugal;
- Low part-time rates and widespread informal work;
- High unemployment rates among youth and women, but low among prime age men and older workers;
- Pronounced labour market segmentation along different divisions (public/ private sector, large/small firms, formal/underground economy, age, gender and ethnicity);
- The family is the primary locus of solidarity whose role is both social (provision of care and support) and productive (creation of family businesses);
- Social security is based on occupational status and work performance and is organised around the male breadwinner/female carer family model (derived rights for dependants);
- The unemployment compensation and vocational training systems are underdeveloped;
- Jobs in the public sector or cash benefits are selectively distributed through clientelism and patronage networks;
- Welfare-state institutions are highly inefficient (Karamessini, 2007).

What we need to take from the VoC literature is that skills regimes and associated vocational training are embedded in particular institutional configurations and national political economies where institutions act complementary with each other. However,

processes such as Europeanisation also need to be considered, as they had and continue to impact upon the direction of policy reforms. This is where EU funding and priorities is associated with processes of national adaptation to EU policy objectives which may or may not be compatible with the characteristics of the national VoC. This, in turn, can provide an explanation as to why, despite all the training that have taken place (mainly EU funded), the link between training, skills and the Greek labour market was so weak during the period under investigation. The next section discusses the labour market policies in Greece and the rest of the EU member states.

8.4 Labour market policies in the EU and Greece

In Greece there has never been a welfare state in the Western sense. Moreover, the development of employment policies showed significant delays in relation to the other EU member states and this was owing to a number of reasons (see below in this chapter). Concerning the various types of ALMPs, the share of expenditures devoted to training had increased slightly (*Table 8-5*) for the earlier EU countries (unweighted average), although the construction of these measures hides large differences between countries, with especially Belgium (large job creation schemes), Britain (almost no job creation or disability schemes), Italy (extreme focus on youth measures and almost no labour market training) and the Netherlands (very large disability programmes) as outliers in various respects (Calmfors and Skedinger, 1995). Comparing Greece in relation to some of the rest of the EU countries (*Table 8-5*), since the early 1990s, regarding public employment services, labour market training and job creation schemes, as a percentage of total active expenditures, the latter was in favour of labour market training and job creation schemes in the private sector (OECD, Employment Outlook, various issues).

Table 8.5 The allocation of active labour market expenditures between different programmes in Western Europe (% of total active expenditure)

	Public employment services and administration		Labour-market training		Youth measures		Job creation		Disability programmes	
Country	1985-89	1990-93	1985-89	1990-93	1985-89	1990-93	1985-89	1990-93	1985-89	1990-93
Belgium	14.4	16.3 ^a	10.4	19.5 ^a	0.8	0.0 ^a	61.1	50.0 ^a	12.9	13.7 ^a
Britain	19.2	28.3	17.9	32.5	32.1	29.6	27.2	4.1	3.8	5.2
Denmark	7.7 ^b	6.4	44.9 ^b	23.2	20.9 ^b	18.9	1.7 ^b	25.0	24.2 ^b	26.1
France	16.6	14.7	38.0	40.2	31.1	24.9	6.9	12.8	6.7	7.6
Germany ^c	23.2	16.3	28.8	36.2	5.3	3.8	20.5	26.2	22.2	17.2
Italy	12.5 ^d	10.9 ^a	4.4 ^d	2.2 ^a	83.0 ^d	86.8 ^a	0.0 ^d	0.0 ^a	0.0 ^d	0.0 ^a
Netherlands	7.1	11.8 ^a	19.1	17.9 ^a	4.9	6.0 ^a	5.4	7.6 ^a	63.3	56.8 ^a
Pre-1995 EU^e	13.7	12.8	25.0	26.5	21.4	22.3	22.0	21.3	17.5	16.7
Sweden	12.4	9.9	27.2	35.6	6.7	8.6	13.9	10.8	39.8	35.0

Notes: a 1990-92; b 1986-89; c for 1985-90 West Germany, for 1991-93 the whole of Germany; d 1985-88; e only the 12 countries which were members in 1994 are included.

Source: OECD, Employment Outlook, various issues (as found in Calmfors and Skedinger, 1995).

The structure of expenditures for active interventions in 1997 (*Table 8-6*) shows that the level of expenditure in Greece, as a percentage of the GDP, was behind that of the EU average concerning all specific interventions, with the exception of “measures for the young” (youth vocational education and training, etc.), which were comparable to the European average. Furthermore, the level of expenditure on public employment agencies seemed to be relatively high, while there was an extremely low amount spent on the disabled and the training of adults.

Table 8.6 Distribution of expenditures on “active” interventions (1997) in the EU member states as a percentage of GDP

	TOTAL	Active interventions					Employment Subsidies		
		Public Employment Services	Adult Training	Youth Measures	Measures for those with special needs	TOTAL	Private sector enterprise	Self-employment	Direct job creation by public and not-for-profit sector
Austria	0.45	0.14	0.17	0.02	0.05	0.07	0.03	-	0.04
Belgium	1.29	0.19	0.29	0.01	0.13	0.68	0.16	-	0.51
France	1.37	0.16	0.35	0.26	0.08	0.52	0.32	-	0.20
Germany	1.25	0.21	0.36	0.07	0.28	0.33	0.05	0.03	0.26
Denmark	1.80	0.13	0.97	0.10	0.28	0.31	0.02	0.06	0.23
Greece	0.35	0.12	0.06	0.10	0.01	0.06	0.04	0.02	-
UK	0.37	0.16	0.07	0.12	0.02	-	-	-	-
Ireland**	1.66	0.24	0.21	0.24	0.08	0.88	0.24	0.02	0.63
Spain	0.56	0.08	0.19	0.07	0.02	0.20	0.11	0.03	0.06
Italy**	1.08	0.04	0.01	0.42	0.04	0.61	0.56	-	0.04
Luxembourg	0.30	0.03	0.01	0.14	0.04	0.07	0.07	-	-
Holland	1.65	0.40	0.35	0.11	0.53	0.26	0.06	-	0.20
Portugal	*	0.11	0.28	*	0.03	0.09	0.01	0.02	0.06
Sweden	2.09	0.30	0.43	0.02	0.62	0.70	0.20	0.08	0.42
Finland	1.57	0.14	0.54	0.24	0.12	0.53	0.09	0.03	0.40
EU-15	1.13	0.18	0.29	0.13	0.16	0.38	0.14	0.04	0.25

*There are no available data.

** Data refer to 1996.

Source: OECD, Employment Outlook, 1999.

It is important to note that the funds provided by the EU on employment issues in Greece, amounted to 2.65 billion ECU, in constant 1992 figures, within the framework of CSF-1 (1989-1993 period) and the budget provided 4.7 billion ECU, in 1994 figures, within the framework of the CSF-2 (1994-1999) - (Chletsos, 1998, p. 171).

8.4.1 ALMPs in Greece

In Greece, the ALMPs developed systematically at the beginning of the 1980s with ESF backing and were placed originally in the micro-economic intervention measures. The training programmes of the unemployed and the workers began to be systematically applied in 1987 and by 2002 about 30,000 unemployed and 40,000 workers were being trained every

year (Dimoulas, 2002:101). Also, comparison of the number of unemployed who took part in ALMPs with the number of unemployed who benefited from passive policies shows that on a yearly basis “ALMPs covered 26-28% of the passive unemployed on benefit, of whom 53-58% follow training programmes” (Dimoulas, 2002:104). According to the information provided in the *Table 8-7*, the number of participants in CVT programmes in Greece in 2000 was 22,789 of whom 4,696 males and 18,093 females.

The result of extended high percentages of unemployment and especially of LTU and the unemployment of the young, was to increase significantly the percentages of those who did not receive unemployment benefits (in Greece and Portugal, those entitled to unemployment benefit were fewer than 1/3 of the total unemployed). A consequence of this development, in combination with the restrictive financial policies which had been applied since 1985 in Greece, was the low levels of funding of employment policies when compared to what was needed and this gap increased continually over time (INE/GSEE, 2008).

Table 8.7 Participants by LMP interventions, Greece

LMP_TYPE/YEAR	2000
Labour market services	:
Training	116,493
CVT only	22,789
Job rotation and job sharing	:
Employment incentives	85,349
Supported employment and rehabilitation	287
Direct job creation	:
Start-up incentives	18,540
Out-of-work income maintenance and support	274,650
Early retirement	:
Total LMP measures (categories 2-7)	220,669
Total LMP supports (categories 8-9)	274,650

Note: categories 2-7 (LMP measures) = active policies; categories 8-9 (LMP supports) = passive policies

Source: Eurostat¹⁶

¹⁶ Available online at http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database [accessed on 9th February 2013].

From the beginning of their application, ALMPs in Greece were placed in a framework of the reinforcement of the labour supply, functioning as a substitute for the policies for the protection of the unemployed. The absence of a systematic evaluation of the results of ALMPs was the reality, despite the fact that these had been functioning for at least 20 years continuously, starting from the late 1980s. In the cases, moreover, where evaluation studies were carried out, following a demand by the EU, their basic financial backer, they showed the results of ALMPs in Greece were not particularly encouraging, but these were never published (INE/GSEE, 2008).

In the Greek case, the effectiveness of ALMPs was undermined by serious deficiencies in the policy implementation measures. The evidence shows that of all the unemployment support policies put into practice by government agencies in Greece, only the provision of information services to help the unemployed find work had any statistically significant effect on unemployment in terms of reducing it (Tsamourgelis, 1993). According to Dedoussopoulos and Karamessini (1998), despite national differences, very widely used ALMPs, such as wage subsidies and vocational (re)training, had a small and diffuse impact on employment creation. The ALMPs did not function “therapeutically” by promoting the employment of the unemployed who were exhibiting increased social and professional needs, but rather, they actually appear to have financed even more the employment of those unemployed who had comparative advantages in the labour market (Balourdos and Chryssakis, 1998). Dedoussopoulos and Karamessini (1998) pointed out that the reasons for the low effectiveness of ALMPs in Greece differed from programme to programme and did not exclusively relate to the policy implementation measures in place, i.e. to national particularities in relation to other EU countries. Regarding the policy formation and implementation aspects, the common factors that led to poor outcomes and diversion of all the relevant programmes in Greece from their expected goals were:

- (a) Insufficient monitoring of labour market changes and trends.
- (b) Problems in the design of the programmes and insufficient control against mismanagement.
- (c) Lack of an integrated approach to the treatment of the unemployed, in particular, failure to combine participation in ALMPs with guidance and assistance for job search.

The observations listed below were, and still are, characteristics of the state of the Greek labour market and indicative of its particular configuration (Papakonstantinou, 1998).

- In contrast to the state of full competition that prevailed among training organisations, Greece’s labour market operated on entirely different terms that

had nothing to do with the law of supply and demand. Studies of how people found jobs had shown that only 15% of those looking for work found it via official mechanisms ensuring equal employment opportunities. The other 85% found work either through the patronage system in force until mid 1990s in the public sector or by word of mouth.

- Fictitious image of labour mobility.
- Incomplete information about job vacancies due to the lack of any mechanism providing this.
- Employer preference for trained professionals who would be immediately productive.

A substantial, in-depth discussion of the importance, the role and the prerequisite conditions for the success of implemented active policies, presupposed a substantial evaluation process of the efficacy of such policies, especially so, given the extremely high sums of money made available to fight unemployment (exceeding 2.64 billion euros as foreseen by the National Action Plan for Employment (ESDA) 2000); all of ESDA's activities were financed via the ESF. However, despite 2000 being the third year of implementing the Action Plan and these measures comprising its main core (job subsidies, vocational education and training, matching of supply and demand) having been rolled out for about two decades, there was still no reliable evaluation system of their efficacy, a fact recognized by ESDA itself in 2000. In any case, typically, ESDA did not include information on the efficacy of its actions of past years, which they failed to do in that year too. Consequently, it is not possible to tell how many steady jobs were created through this programme or to what extent vocational training programmes helped the unemployed find jobs (IN.E./GSEE-ADEDY, 2000).

It is erroneous to think that all the positions of employment connected to, for example, funding for the hiring of the unemployed or funding for young businessmen were additional. For, some of these positions would probably have been created anyway, whilst owing to their creation others were probably displaced. Indeed, previous studies had shown that these programmes, especially the one backing young entrepreneurs, had a high percentage of deadweight, whereby many of the recipients would have undertaken the funding activity anyway (KEPE-REMACO, 1997). The next section deals with the unemployment and skills in Greece and the rest of the EU member states during the focal period.

8.5 Unemployment and skills in Europe and Greece

It has long since been recognised in almost all EU countries that there is an inverse relationship between the level of education and training, on the one hand, and unemployment rates on the other. The reason given for this is the assumption that better qualified people have higher activity. Apparently, employers not only associate higher skills with specific performance capabilities, but also with the social and flexible competencies increasingly required in the course of technical progress (CEDEFOP, 1998a). Data on unemployment and qualifications across the EU are gathered using different criteria, thus making international comparisons difficult. For example, Eurostat measures unemployment rates for 25-59 years old, whilst the OECD gathers them for those between 25 and 64 years of age¹⁷. *Table 8-8* shows the unemployment rates for different levels of education and training in EU-15 by age and gender according to Eurostat data. In younger age-groups, and even more so in the older ones, unemployment rates among less qualified people [ISCED (International Standard Classification of Education) 0-2] were significantly higher than those of higher qualified people. It can also be seen that females were more affected by unemployment than males and there was a positive correlation between their levels of qualification and employment.

¹⁷ In addition there are different definitions of educational attainment. Eurostat (in: Education across the EU, 1996b) has defined a combined variable “education and training level achieved” based on two questions in the LFS (question for attained general level of education, and for attainment of vocational or university training). The OECD refers to the conventional ISCED nomenclature: Pre-primary, primary and lower secondary education (levels 0-2); Upper secondary and post-secondary non-tertiary education (levels 3 and 4); First and second stage of tertiary education (levels 5 and 6).

Table 8.8 Unemployment rates by educational attainment, age and gender - 1995; EU-15 (%)

	25 to 29 years old			30 to 59 years old		
	Total	Male	Female	Total	Male	Female
ISCED 5-7 ¹⁸	-	-	-	4.7	4.2	5.5
ISCED 3 ¹⁹	14.1	12.4	16.1	7.6	6.2	9.4
ISCED 0-2 ²⁰	22.2	20.5	24.7	11.4	10.3	12.9

Source: CEC, 1997b/Eurostat/CEDEFOP: Key data (as found in CEDEFOP, 1998a).

Table 8-9 illustrates unemployment rates by qualification in different EU countries according to Eurostat data. Again, the differences, between countries this time, were enormous. There were a few EU countries where an inverse relation between unemployment and qualifications was not found for certain categories. In Greece and Portugal unemployment among people on ISCED 3 level was higher than among the less qualified, whilst in Italy and Luxembourg, unemployment rates among the highly qualified (ISCED 5-7) exceeded those of people with intermediate qualifications.

Table 8.9 Unemployment rates by level of educational attainment⁽¹⁾ in the EU for 1994

Country	ISCED 0-2	ISCED 3	ISCED 5-7
Belgium	12.5	7.5	3.7
Denmark	12.6	8.3	4.6
Germany	14.8	8.9	5.3
Greece	6.2	8.3	5.3
Spain	22.4	20.0	15.1
France	14.8	9.7	6.6
Ireland	21.0	9.1	5.3
Italy	9.3	7.4	8.1
Luxemb.	3.7	1.9	2.4
Holland	12.6	7.7	5.5
Portugal	6.1	6.4	2.4
UK	11.2	7.9	4.1
EU-12	13.2	8.8	6.1

(1) 25-59 years old

Source: Eurostat: Education and Employment prospects, 1995 (as found in CEDEFOP, 1998a).

¹⁸ All first and higher degrees, teaching and nursing qualifications and HNC/HND.

¹⁹ 1 or more A-level passes, GNVQ 3 and equivalent, NVQ 3 or equivalent, trade apprenticeship. GNVQ 2 or equivalent and NVQ2 or equivalent.

²⁰ ISCED 2: 1 or more O-level/ GCSE passes, 1 or more CSE passes and all other qualifications.
ISCED 0-1: No qualifications.

According to the OECD (1990a, p. 67, Table 2.3), conversely to what happened in many other European countries, the unemployment rate of university graduates in Greece was higher than that of the less educated and from the late 1980s onwards, many graduates of tertiary education, especially of certain old traditional specializations, faced problems of absorption into the labour market (Iliades, 1995). When considering the LTU of different skill levels in Europe (Eurostat, Education and Employment Prospects, 1995), it is found that intermediate and higher educated people were less affected. This was true for the whole EU except Spain and Greece, where LTU was higher for ISCED levels 3 and 5-7 compared to levels 0-2, for Italy where LTU was the highest for ISCED level 3, and for Luxembourg and Portugal where the ratios of ISCED levels 0-2 and 3 were equal. In Greece, according to LFS data for 1983 and 1993 (see *Table 8-10*), university graduates - in most cases - presented higher LTU rates than the less educated.

Table 8.10 LTU rates and educational level for 1983 and 1993 (Greece)

Educational Level	1983			1993		
	Total	Male	Female	Total	Male	Female
University Graduates	38.9	35.6	41.6	55.3	50.8	57.7
Lyceum Graduates	42.4	28.6	49.7	53.3	44.4	58.6
High School Graduates	26.3	19.5	36.5	45.3	34.7	54.8
Primary School Graduates	27.2	20.6	37.1	47.3	36.4	57.3
Total (aged 15-64)	33.6	23.5	43.3	50.1	40.8	56.7

Source: LFS

The picture that emerges from the data for Greece suggests that there were serious problems in the transition from school to the workplace. In brief, it would appear reasonable to say that the relation between the education system and the job market presented a basic discontinuity and there were also significant differences between the two genders (sources: LFS, 1990 & 1995 [as found in Karantinos, 1998]; Eurostat [for 2000 and 2005 - available online²¹]). In the 1990s, the public funds spent on education were remarkably low, much lower than in other EU countries and the proportion of adults in lifelong training was also comparatively very low (Eurostat, 2002). It was therefore emphasized in the 2001 Recommendations that the Greek government should “increase investment in and further improve education and vocational training systems, including apprenticeships, in order to enhance the skills of the labour force and meet the needs of the labour market” (CEC, 2001,

²¹ Available online at http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database [accessed on 9th February 2013].

p. 10). Although it was not often referred to, in 2000, 25.4% of the unemployed in Greece had reached levels 5, 6 and 7 of the ISCED, including those with post-graduate degrees as well as high-level technicians. Moreover, the percentage would be as high as 65.6% if level 3 were added (people who had completed apprenticeship programmes and other vocational training). Clearly, the unemployed in Greece were well-educated, which is not to say that more training and lifelong learning would not be useful to them, but it would appear that it could not be a solution to the issue of low productivity (Seferiades, 2006).

Unemployment of university level graduates rose throughout the last two decades of the last century (4.3% in 1981, 6.6% in 1990, 7.6% in 1997), but this did not affect them uniformly. Karamessini (2003) found that those with physical education & sports, philosophy, theology, horticulture & forestry qualifications had higher than average unemployment. Graduates from economics, social and political sciences, pedagogy, physical sciences and mathematics fared a bit better in the employment stakes. In addition, a study by Mitrakos *et al.* (2010), assessing the state of the Greek labour market between 2004 and 2007, discovered that the higher the level of education the lower the LTU. However, amongst those with tertiary qualifications (TEI, university, postgraduate studies) significant variations were observed between each type. Moreover, while graduates from some disciplines encountered few unemployment problems after graduating (from IT and law schools the male graduates), others faced the risk of a year or two being unemployed after graduation (physical sciences, mathematics & statistics) and some were subject to serious LTU for several years (physical education and sports, social sciences, and several TEI Schools). Moreover, women graduating from tertiary education, in particular, faced a substantially higher probability of unemployment in comparison to men with equivalent qualifications. For some categories, females remained unemployed several years after they had graduated (university: horticulture & forestry, physical education and sports; TEI: agricultural & food technology, economics and management). Finally, institutions and departments experiencing lower unemployment rates were the ones with the highest numbers of applicants. The following section discusses the Greek political economy and the impact of the EES on the Greek labour market and society.

8.6 Greek political economy, the EES and reform capacity in Greece

The tradition of state-driven development in Southern Europe is central to Greece's economic history (Tsoukalas, 1993:62; Diamandouros, 1993, 1994:11) and its antipathy to decentralization goes back a long way. Since the Greek political system is based on centralism, this has significantly affected economic advancement and the way society works, as the central state is fundamentally weak (Tsoukalis, 1997). The limited capacity of the Hellenic state to fulfil its regulatory function can be observed in the fact that the state has been incapable of managing the changes needed to modernize a series of sectors (Spanou, 1996). The fragmentation of interest representation and decision-making resulting from the clientelist tradition and perpetuated by the deficiencies in the political/administrative system, has undermined the chances of success of any rationalization policy. According to Tsoukalis (1997:169), "its pervasive influence [the state] is intimately related to a clientele system, which it has been precisely intended to serve". Pagoulatos has identified Greece in the post-war period as a weak and incomplete "developmental state", based on a "state-driven policy pattern" with a protected market (2003:47). The late industrialisation of Greece, and its dependence on the Greek Diaspora and on foreign capital, meant that the state filled a domestic vacuum (Mouzelis, 1993; Demertzis, 1994). By means of extensive regulation, protectionist measures, transfers and subsidies the state exerted undue influence on the economy. Furthermore, it was characterized by 'rent-seeking' conduct, whereby particular sectors and interests were able to gain greater benefits from the government than others, in particular, owing to corrupt practice (Sotiropoulos, 2004). Moreover, it was a semi-peripheral type of capitalism, mainly financed by foreign sources rather than income generated domestically (Giner, 1982:176; Mouzelis, 1993; Diamandouros, 1994:23). These capital funds were used for enterprises in the banking, commerce and shipping sectors, instead of manufacturing, by a 'comprador' bourgeoisie promoting foreign and not national interests (Mouzelis, 1993).

Greece has had a poor record when it comes to adopting reforms in accordance, for example, with the Lisbon Agenda (2000), in spite of the desire to implement them being voiced by successive governments. This was largely because the notion of an economic or social 'model' for Greece was absent in those responsible for policy making (Featherstone, 2008). In the literature on neo-corporatism, CPE and welfare regimes, Featherstone looked

for the Greek model and derived a general hypothesis concerning its problems of ‘reform capacity’, in relation to the Lisbon Agenda:

“Market liberalising reforms (e.g. employment flexibility, privatisation) encounter a weak domestic constituency for support as the structure of interest mediation favours the interests of the public sector and the privileged position of the few large private corporations. As a result, the key social partners defend the current privileges and protection, fearing the risks of more open competition and the consequences of low state welfare provision. Similarly, pension reform will be resisted if it threatens current privileges or market stability, with workers anxious as to the lack of wider welfare support and firms as to the threat to current labour conditions. Stop-go, incremental policy reform is the most likely outcome across such sectors”.

Although this was very much the case during the period under investigation, the last point no longer holds owing to a wide range of labour market and welfare reforms having been enacted after the 2008 economic crisis. Deficiencies of the public administration and the economy as well as clientelistic relations, remained prevalent throughout the reference time period. In general, Greece recorded a fairly low score compared to other EU countries concerning ‘government effectiveness’. Furthermore, the fact that Greece failed dismally in implementing the EU’s regulations and had a high rate of infringement cases, demonstrates the problems of state inefficiency that were endemic (Featherstone, 2008). Despite lacking efficiency, the size of the Greek state was not small. In 2004, public expenditure in the country (as a percentage of GDP) was 49.8%, somewhat above the EU-25 mean, whilst it dropped to 46.1% in 2006, slightly below the EU-25 mean (Eurostat, 2006). The state continued to be inefficient, oversized and frequently corrupt.

As mentioned previously, a very small number of big firms and a very large number of small and medium size businesses made up the structure of the economy and this affected the role of the state in terms of mediation between the interest groups. Amable (2003) termed the conditions that applied in this instance as those of high governmental rules and low level of competition. Although protection of employment was powerful, labour was comparatively cheap and inflexibility was widespread (e.g. obligatory overtime). Moreover, through the underground economy state regulation could be avoided by business enterprises. As the CPE approach to Southern European states anticipates, in Greece distorted welfare and heavy

regulation have gone hand in hand. The Greek state's ability to provide public goods was also weakened by its relatively low competence and capability. The OECD reported additional reasons for the weakness of competition policy in Greece, namely the absence of a competition culture combined with the well-established and widespread state regulation and price controls (OECD, 2001b).

Zartaloudis (2014) pointed out that the Greek ministerial elites saw the EES goals as being inappropriate for the Greek context and consequently, it was largely ignored. That is, policymakers were not prepared to engage in policy learning from other countries in terms of drawing up National Action Plan (NAP)/ National Reform Programme (NRP), viewing it as an excessive bureaucratic burden. Consequently, no centralized body covering the EES was established. In fact, the drawing up of the NAP-authoring was allocated to external experts with no support from the ministry prior to 2004. When in this year the ministry's monitoring capacity was enhanced, this was not due to the EES, but rather, for internal reasons (Zartaloudis, 2014). However, Zartaloudis (2014), highlighted how the EES significantly influenced Greek employment owing to ESF conditionality. That is, the strategy put pressure on successive Greek governments to its goals as prescribed in the ESF rules. Nevertheless, policy change did not occur until after 2001, just the after 2000-2006 programming period began. Up to that point in time, EES ideas, goals, reports, country-specific proposals and benchmarking failed to deliver any noticeable impact on Greek employment policy, regardless of their being reproduced in numerous official documents. On the basis of the extensive review of labour market characteristics, vocational institutional structures, welfare policies and nature of the Greek political economy, it is concluded that the rolling out of EU money for training and its training policies, as discussed in chapter 2, were not effective.

8.7 Critique of the EU's model for financing vocational training in the Greek context

In what follows, I discuss the obstacles to the effective implementation of the EU funded vocational training programmes in Greece. The EU did not, and still does not, impose or recommend the type of vocational training courses to Greece that may be appropriate to the demands of its labour market and the Greek economy, more generally. The Greek agencies decided which programmes to run, whilst the EU simply provided the financial

resources and only audited whether were spent appropriately, not if they met any objectives regarding labour market outcomes. Another major criticism, is that consecutive Greek administrations failed to ensure the training programmes were run in a manner that took into account the needs of the Greek labour market.

Human capital theory is not applicable to all countries' economies. The EU's approach regarding vocational training is based on this theory, but the policy generated from it had no impact in the Greek context. In reality, the EU's policy paradigm with respect to vocational training, whilst being logical, presupposed better organization of the Greek labour market than was the case. The Greek institutional framework for skills/ VET/ matching supply and demand was inefficient/ineffective and perhaps totally incompatible with EU funded vocational training programmes. The key point here is that the OAED did not play an effective role, as employers were not obliged to record their needs in terms of skills and shortages. Moreover, there was also no obligation for employers to take people from the register of the unemployed compiled by the OAED. The latter was thus peripheral in the functioning of the labour market even prior to the EU money being made available. As a consequence of this situation, the money that came from Europe and the exposure to Europeanization did not work as a push factor for any serious reorganisation (Zartaloudis, 2014). In sum, the conditions that led to vocational training being effective in some Northern European countries were not present in the Greek labour market.

In Brussels, as mentioned in chapter 2, the perspective was that so as to combat unemployment the supply-side of the economy needed to be reinforced and the demand-side was viewed as being the responsibility of the private sector (banks, entrepreneurs). In addition, institutional reforms in public administration as well as the labour market needed to be carried out by the countries themselves. That is, it was the EU's view that the European countries had, and still have to, put in place the necessary macroeconomic conditions for the skilled or high-skilled to be able find employment. The Greek labour market did and still does not produce high-skill jobs despite many Greek people being highly educated.

8.8 Linking my research to the present economic situation in Greece

Although it is beyond the period under investigation, it is worth discussing some evidence from the impact of the current crisis on the Greek labour market which magnified

dramatically the structural problems identified earlier. Despite the unemployment rate in Greece decreasing to the euro area average before the crisis (OECD, 2011a), in international terms structural and long-term unemployment remained high in Greece. Moreover, the employment rates for the young, females and the elderly were low. Employment in Greece was seriously affected by the crisis, raising the estimated structural unemployment and the LTU even further (OECD, 2011a). High structural unemployment probably reflected policies that caused the labour market to function less strongly, including quite rigorous employment protection legislation, according to OECD surveys (OECD, 2009). Obstacles, like restrictions on investment, have also been noted by business surveys (World Bank, 2010). It appears that cyclical unemployment has become structural in Greece, which means that it is more difficult to return people to employment after the recession (OECD, 2010; Guichard and Rusticelli, 2010).

During the ten years of vigorous expansion (mid 1990s to mid 2000s) leading up to the crisis, a large number of structural problems persisted in spite of the noticeable improvement in actual labour market outcomes. Subsequent to this, the Greek economy experienced severe recession, with it registering a negative growth rate for the first time since 1993 in 2008, the year of the global financial crisis. In the past, the weaknesses of budget deficits, increasing public debt and a growing external trade deficit, had been partly offset by EU Funds and policies. However, by 2009 the Greek economy was in an extremely bad way. In 2010, the government put forward a “rescue” plan (Memorandum I in April 2010), which has continuously been modified and extended (notably, in July 2011 and in the February 2012 Memorandum II) (Dedoussopoulos *et al.*, 2013), culminating in Memorandum III being set up in the summer 2015. These memoranda chiefly pertained to wage bargaining processes, with the goals of increasing labour market flexibility and productivity. Specifically, these changes included such as: reducing the minimum wage to help the young into the labour market, lowering firing costs, reducing the overtime premium, cutting the salaries paid, prolonging temporary employment, making it easier to sack staff, reducing the severance pay for white collar workers and shortening the notice period for dismissal (Bakas and Papapetrou, 2014).

Since 2008, the GDP has fallen by over 25% (Antonopoulou *et al.*, 2014) and the events that caused this have been subject to heated debate. There are still unresolved questions regarding the extent of the problem, its management by the then Government and the rationale for the policy advocated (Dedoussopoulos *et al.*, 2013). Parallel to this steep fall in GDP, not experienced by any other Western economy, unemployment has continued

to increase at an alarming rate. Regarding which, 75% of the job losses happened during the time when Greek policy has been subject to EC-ECB-IMF (Troika) control (2010-13). In terms of figures, the unemployment rate rose from 7.7% in 2008, with the onset of recession, to over 27.8% in October 2013. In absolute terms, 1,000,000 more people became unemployed, making a total of 1,387,520 per (ELSTAT, LFS, January 2014), of whom, 71% have been out of work for over a year (ELSTAT) (Antonopoulou *et al.*, 2014). These statistics are the worst for any Western economy since the Second World War and even the 1929–34 U.S. Great Depression levels have now been overtaken by Greece in terms of depth and duration (Papadimitriou *et al.*, 2013).

The extant structure of unemployment suggests that the likelihood of a large section of the out of work labour force getting a job is very low. Consequently, the Greek economy is going to have to deal with a large permanently poor section of society (more than 20% of the total population), which will not be capable of meeting pension requirements. The increase in social security demand will drive pensions down with significant new resources being allocated to pension funds (Dedoussopoulos *et al.*, 2013). In particular, the rates of youth unemployment are among the highest in the EU and unlike other countries, a substantial proportion is graduates from tertiary education (Mitrakos *et al.*, 2010). Both being unemployed and its duration have been found to be detrimental to employment and career trajectories. Moreover, a brain drain by the educational elite to Northern Europe has impacted badly on the quality of the labour force, although there are no solid numbers regarding this. This could prove to be serious barrier to any re-orientation of the Greek economy involving higher level skills (Dedoussopoulos *et al.*, 2013).

Concerning now the linking of past and present in Greece comparing the meso and macro levels, I can only think of one way in which we can do this. What my thesis found empirically is that:

(a) there was no effect of training for the period under investigation (micro-level). I then, further, contextualised this finding with reference to secondary analysis of evidence and available academic research. I found that:

(b) this ‘non-effect’ took place in (and can be seen as a by-product of) a particular context of vocational training ‘system’ that had specific characteristics (meso-level);

(c) this ‘non-effect’ and the ‘inedequat’/limited vocational training ‘system’ are outcomes and institutions of a type of political economy that produces and sustains a labour market with a low-skills equilibrium (macro-level).

So, logically, one can expect that if (b) and (c) continue to be unreformed in the second period under investigation (post crisis Greece) then (a) will also remain the same. From my preliminary extra work it does not seem to be any serious changes in the political economy, or reforms in the VET system, to indicate that any change in the outcomes is to be expected. Of course, this is an empirical question that we can only be expected to investigate as part of future research. But all indications are that even 10-15 years later the combination of political economy and the character of Greek VET system will produce similar ‘non-effects’ - especially now in crisis where unemployment is ‘sky-high’. The EU seems to continue to promote/fund ALMPs/training inspired by the same paradigm - which does not seem to work for Greece. Current reforms in Greece seem only to drive the labour costs even lower without any increase in demand for high skills. The solution for many well educated Greeks is now to migrate.

The recent financial crisis that started in the U.S. impacted badly on Ireland and Southern Europe, but Greece was the hardest hit (Antonopoulou *et al.*, 2014). After the 2010 debt crisis, unemployment became a serious matter for Eurozone countries. In Spain, by October 2012 it had reached 26.2%, an unprecedented level. Whilst in Greece and Portugal the rates in September 2012 rose to 26% and 16.2%, respectively, levels not seen for over half a century (Cheng *et al.*, 2014).

8.9 Conclusion to the chapter

As discussed, southern European countries have tended to be considered an exception to the prevailing classification of welfare capitalism or were just excluded (e.g. Esping-Andersen, 1990; Hall and Soskice, 2001). Schmitter noted almost thirty years ago that the Southern European states have been treated as the ‘stepchildren’ of such comparative classifications (1986:3) and this still holds true. Active employment policies in Greece mainly functioned within the framework of labour supply reinforcement policies, serving mainly social protection for the unemployed (Papadopoulos, 2006). Despite their expansion owing to ESF financing, they were not placed in the wider developmental model, but aimed at the management of unemployment by the selective funding of very small businesses and those of the unemployed who had good prospects of gaining employment. That is, the ALMPs were not effective at providing opportunities for those most socially and

professionally excluded. Consequently, there was no distributive justice in favour of the LTU in terms of providing them pathways back into work and hence, LTU continued to increase.

The overall conclusion for the period under investigation from chapters 6, 7 and 8 concerning training delivery in Greece is that the findings of the econometric analysis go hand-in-hand with the analysis I have made at the meso and macro-levels concerning the structural deficiencies of the Greek labour market, the ALMPs and the Greek state in general. On the basis of the extensive review of the interactions between a wide array of labour market structures and characteristics, vocational institutional characteristics and attributes of the Greek political economy, it is concluded that the cascading of EU money for training and the EU training policies discussed in chapter 2, were not effective in the case of Greece, since EU-funded training was used for other purposes. Regarding the macro-level of analysis, Greek unemployment during the focal period was structural, exhibiting distinct dynamics. In 1995, the rate passed the 10% mark for the first time in the latter half of the century. Moreover, it exceeded that of the EU average for the first time in 1998, and this gap has been widening ever since. Training could be ineffective even in Northern European countries, but the reasons underlying this were not be the same as those in Greece. One key particularity of that nation's circumstance is the very high levels of unemployment amongst the skilled labour force.

The next chapter (9) is the concluding chapter of this thesis.

CHAPTER 9: CONCLUSION

9.1 Introduction

This chapter provides a synthesis of the findings and concludes the thesis. This thesis aimed to address the following main research questions:

(a) What was the impact of EU funded vocational training on the Greek labour market and individual job seekers who undertook this training from 1988 to 2000? and

(b) How can this impact be explained?

Three sub-questions were also posed in relation to the three levels of analysis:

- 1) What was the impact of the training programmes at the participant level? (micro-level);
- 2) Was the training system, i.e. the institutions, in Greece, both regionally and nationally, effective in helping people to find jobs and if not, why? (meso-level); and
- 3) To what extent did the ALMPs in Greece, in particular the policies of vocational training, integrate EU-funded training in their skills strategy? To what extent was any (in)effectiveness of ALMPs related to the characteristics of the Greek political economy? (macro-level).

Accordingly, this chapter first provides a summary of the key findings of the empirical econometric analysis. This is followed by a discussion in which the links between the three levels of analysis (micro-meso-macro) are explored in relation to the theoretical issues and the literature discussed in the previous chapters. Also, I consider the limitations of the research, and the contributions of the thesis to theory and policy analysis. The chapter also discusses the policy implications for Greece in the domain of training and in the broader economic sphere as well as putting forward some proposals for future research in the field.

9.2 Summary of the findings

In chapter 5, the focus was on the micro-level of analysis that dealt with the first research sub-question, namely “what was the impact of the training programmes at the participant level”? This question was operationalized by empirically testing the following sub-questions:

- Did the social and demographic characteristics of an individual in Greece affect the probability of finding employment during the period under investigation?

- Did the introduction of training courses funded by the EU have a statistically significant effect on the probability of finding employment?
- Did university graduates in Greece face greater difficulties in finding a job compared to those less educated (as relevant literature and aggregate statistics have suggested)?

According to the findings of the main effects of the logit model, females were more likely to be unemployed than males, those married were less likely to be unemployed than their single counterparts, whereas people in the age group 15-24 years old were found in a worse situation in the labour market in relation to people in older age groups. The econometric results for Greece (main effects) support the human capital theory with regards to education, i.e. university graduates had a higher probability of finding employment than people with lower education levels. Hence, my findings support the main policy lessons of human capital theory in the field of education. However, this was not so in the case of training, as this variable emerged as being statistically non-significant. That is, the results of the logistic regression confirm the conclusions of the various studies that there was very limited impact of training on the labour market in terms of helping people to find long-term employment (see the critique of the vocational training policies in Greece in chapter 6 and that on ALMPs in chapter 8). Also, the output of the logistic regression contrasts with some studies in that they found a positive impact of apprenticeship on the labour market (see below in this chapter).

Regarding the interaction effects analysis, the findings in relation to education support the human capital theory, with the exceptions to this being the relation between educational level and age groups 15-34. Hence, most of the educational variable findings concerning this aspect of the analysis did not support human capital theory. In particular, the more educated a person was did not mean an improvement in his/her position in the Greek labour market during the period 1988-2000. These findings on education are consistent with those of some studies (see Meghir *et al.*, 1989; OECD, 1990a; Iliades, 1995; IN.E./GSEE-ADEDY, 1999; Katsikas, 2005) and aggregate statistics (Eurostat: Education and Employment Prospects, 1995), as mentioned in section 3.2, which assert that university graduates in Greece were not in a better position in the labour market than non-university degree holders with regards to the probability of finding a job. One explanation for this could be the importance given to university level studies by young people and their families since the 1980s, which resulted in a surfeit of graduates. That is, the very large number of

graduates meant that their likelihood of being employed or not was approximately the same regardless of their skills. This could be attributed to them holding out for a good wage, which they felt they deserved given their qualification and were not prepared to take up poorly paid unskilled work. However, wage levels are beyond the scope of thesis and so, there is no evidence in support of this. Also, the fact that many families were (or used to be before the crisis) able to offer some degree of protection could explain this phenomenon, i.e. the highly educated could “afford” to wait for the right employment.

The results of the interaction effects analysis for training are not different from the findings of the main effects, with the exceptions being the age groups 25 to 64, who were more likely to be unemployed in relation to those 15-24 years old and concerning training, people who lived in Thessaloniki or in the rest of the urban areas were more likely to be employed than those living in rural ones. In other words, the chances of finding a job did not change when training is counted as an additional qualification in relation to the other characteristics of individuals in the LFS. These results were expected, first, because the findings on all training variables in my logit model were non-significant and second, because the number of training records I used was apparently even smaller when I examined the interaction effects, hence logically, the same outcomes would be expected.

The results support matching theory better than human capital theory, because the former supports the perspective that more education leads to less training and Greece has many over-educated people. This supports even more my stance that the human capital theory could (and still can) not provide an explanation for the training configuration found in Greece. The econometric findings on training are in line with those of Livanos (2007 and 2009a) and to the best of my knowledge, our studies are the only econometric studies for Greece on this topic based on LFS micro-data. My results, in general, verify the conclusions of the studies carried out by other authors discussed in chapter 6 based on qualitative research concerning the impact of training courses on the Greek labour market (meso-level). However, the econometric findings contrast with a number of studies that set out to evaluate the apprenticeship system in Greece as a whole and found a positive influence (Kassimati *et al.*, 1984; University of Macedonia, 1994; University of Patra, 1994). But they are consistent with the more pessimistic perspective that the training was not ‘fit for purpose’ as determined in other studies (University of Piraeus, 1990; University of Piraeus Research Centre, 1994 - as found in Dedoussopoulos *et al.*, 1998), and even by the OAED itself. In relation to the former studies, they made their generalisations for the whole of Greece based on a few interviews or limited data, such as aggregated data of the LFS, which renders their outcomes

problematic. Consequently, I believe that my econometric study outcomes are more robust and based on more reliable micro-data. Moreover, my econometric results are compatible with those of studies exploring the basic characteristics of the Mediterranean and the MME type models analysed in chapter 8 (macro-level). In sum, micro-econometric analyses for European countries invariably confirm that training has had “mixed” results, but most of the time they have found a statistically insignificant impact on the participants’ prospects of employment.

With regards to the meso-level analysis, my research was guided by the following sub-question: “Was the training system, i.e. the institutions, in Greece, both regionally and nationally, effective in helping people to find jobs and if not, why?”. My secondary analysis of evidence referring to the period under investigation revealed numerous weaknesses in Greece’s vocational training policy. These mainly stemmed from the fact that it was put together in a piecemeal fashion, and that its objectives were undefined. The system of CVT did not function complementarily nor in co-ordination with initial VET and was often aimed at curing the weaknesses of the system of the latter. The field of continuing training was not clearly defined (see sub-section 2.4.1), whilst the division between initial and continuing vocational training was also obscure. Many organizations of CVT offered, in reality, initial-basic vocational training; for instance, many of their programmes provided general knowledge aimed at flexibilisation and adaptability, an objective which should be the target of basic training.

Moreover, the national vocational training policies were designed and developed to take advantage of EU resources, rather than to meet the needs of the labour market and the corresponding demand for specific occupations and skills (as OKE [Economic and Social Committee of Greece] pointed out in its Opinions 1/95 and 4/96). There was a lack of structures, institutions or a tradition of guild-like forms, as have been promoted in many parts of Europe over the last twenty five years. Consequently, there was an unavoidable recourse to informal information and arrangement procedures, which replicated the petty-clientele relations common to the Greek socio-economic context. My findings support the arguments of Iliades (1995) that the lack of a holistically organized system of basic and continuing training resulted in more young people becoming involved in the labour market without any form of training.

Funding for CVT was earmarked for on-the-job training programmes and CVT programmes for the unemployed. In both cases, the selection criteria for the programmes focused on formal specifications regarding the way in which they were conducted rather than

on the content, and they did not allow for evaluation from the point of view of their impact on production and employment. The general characteristic of vocational training policies was their lack of any link, co-ordinated or otherwise, with unemployment policies. The problems in the processes of ratification and the absence of impact evaluation during the implementation of vocational training programmes within the first and second CSFs, resulting in significant negative consequences with long-lasting impact, were also due to the lack of a cohesive developmental programme for the country and the absence of a suitable institutional framework. Even during the third CSF (2000-2006) there were no evaluation procedures evaluated by outside auditors, apart from bureaucratic controls, that is, there was only external economic audit. In general, there was a failure in planning a global system for appraising and following the functional outcomes of training intervention.

Reskilling as a strategy to improving employability did not seem to work. My research indicates that the main cause of the OAED's limited intervention in the matching process was due to institutional matters (poor institutional frameworks, absence of motivation to announce job vacancies), and a second cause relates to functional matters (inadequate network of employment offices, failure to define their responsibilities exactly, absence of specialization of their personnel, insufficient formation of schemes to provide the unemployed with information, etc).

In spite of the absence of systematic evaluation of the results of active employment policies, the results of the rather limited studies that were in fact carried out were not particularly encouraging. These findings go hand in hand with the results of similar studies targeting the evaluation of the results of ALMPs mainly in the developed countries of the EU. Few cases of interventions with significant positive results in the domain of training were found, as shown in chapter 4. ALMPs in Greece functioned as labour supply reinforcement policies in order to manage unemployment, but more often than not, they were used to, temporarily, serve the needs of the unemployed in relation to social protection. At the same time, although ALMPs contributed to the management of the unemployed, especially of the young and females, this did not lead to tangible results in relation to their placement in employment or even more to the reduction of the total levels of unemployment.

Overall, during the period under investigation, the more 'proactive' employment policy in Greece - which expanded mainly due to ESF financing - was apparently not integrated into a broader developmental model. That is, it was focused on targeted funding for very small businesses and those unemployed with reasonable access to employment, anyway. In sum ALMPs did not function "therapeutically" in promoting the employment of

those unemployed facing increased social and professional restrictions, but rather, they appeared to fund those unemployed who had comparative advantages over them.

The third (macro) level of my analysis involved addressing the following sub-questions: ‘To what extent did the ALMPs in Greece, in particular the policies of vocational training, integrate EU-funded training in their skills strategy? To what extent was any (in)effectiveness of ALMPs related to the characteristics of the Greek political economy?’.

My secondary analysis of evidence and academic research at the meso and macro levels referring to the period under investigation complements the work of Economou (1997), who contended that the first Greek CSF (1989-1993) turned out to be a failure. For Economou (1997), the main reason was that the programmes related to CSF were integrated into political clientelistic practices, endemic in the Greek political life. This is a view I have some sympathy with; however, for these practices there is little empirical research and their investigation goes beyond the scope of my thesis. The problems of today had already been identified in the late 1980s, but apparently little has been done to rectify them. Of course the current crisis has not been magnified in Greece because of the ineffectiveness and inefficiency of these training programmes, but has to do with the structural problems already existing in the economy and the labour market well before the crisis. The country entered the euro under these conditions and dynamics and their non-resolution contributed, to an extent, to the country’s current economic and social bottlenecks.

By the time of the focal period of this research EES ideas, goals, reports, country-specific proposals and benchmarking had failed to have any significant impact on Greek employment policy, despite their featuring in numerous official documents. Based on the review of labour market characteristics, vocational institutional structures, welfare policies and nature of the Greek political economy, it would appear that the EU money earmarked for training produced non effects. Following the VoC literature, whereby the nature of skills and vocational training in a country is determined by the particular institutional configuration and national political economy, I illustrated how the non-effects of training at the micro and meso levels described for Greece can be attributed to the nature of the labour market and its political economy, i.e. the macro-level. Clearly, the macro-level institutions both internal and external to Greece failed to address the structural problems that were causing high levels of unemployment, in particular, LTU as well as the predominantly low skills base.

9.3 Contribution to knowledge and implications for policy

My effort with this thesis was to evaluate the effectiveness of training on the Greek labour market and, further, explain why there was little or no impact. The rationale was to provide an understanding regarding how the whole system was organized and to connect the outputs with key aspects of the administrative and economic system. The findings of the econometric analysis are in accordance with the secondary data analysis at the meso and macro levels. I also found that the impact of EU funded vocational training in Greece during the period under investigation was negligible owing to policy failure instigated by the centralized state by providing evidence at all three levels. This leads on to the major contribution of this research. A much broader perspective than extant micro perspectives has been provided, one which moves our understanding beyond the characteristics of the individual trainee to include important institutional and macro-economic factors to explain policy success or failure, and to draw lessons for policy.

The results indicate that the mismatch between supply and demand for labour could be partially attributed to the training mismatch, but this was only one cause of the unemployment problem. I tested the human capital theory, to determine whether or not the more educated and the more trained a person was, the higher the probability of him/her finding a job. Based on empirical data from the Greek LFS I have clearly shown that the EU funded vocational training programmes did not work for Greece, i.e. the financial resources directed to training activities did not have any impact on the labour market. One of the contributions of my thesis is that, given the experience in Greece, it is evident that abstract micro-level theories of skills mismatch, like the human capital theory, cannot be applied in political economies where labour markets cannot absorb high skills and where demand for jobs requiring these is weak. I have demonstrated that human capital theory, under certain circumstances, cannot provide explanatory power regarding the workings of labour markets. Specifically, I have shown how Greece is such a case, because high unemployment has traditionally coincided with phenomena like over-education and a low skills employment equilibrium, thereby not following the trajectory of human capital theory. The results of my thesis bring into question the usefulness of the ALMPs as they were at the end of the last millennium and still are today. For, I have provided strong evidence that they have been poorly run, uncoordinated and lack any evaluation, something that has not been so comprehensively brought to light previously.

Failure of successive governments to grasp what reforms are required, has led to further deterioration, particularly after the recent economic crisis. At the EU level, the Commission has tried to impose a solution that given the evidence provided in this thesis might well not be appropriate for the Greek economy, as could well be the case in other Southern European states. Clearly, policy makers at the national level need to undertake institutional reform that involves a joined up approach to addressing the failings of the current policy configuration. At the supranational level, the EU Commission needs to be urged to move away from its one-size-fits-all approach to skills development and it also, should widen its audit to cover the content of programmes so as to assess their appropriateness for improving the situation. This would ensure that providers of training in Greece would have to employ joined up thinking such that real training needs or otherwise they could have their funding withdrawn.

9.4 Limitations of the study and directions for future research

In my study, I explored econometrically the impact of vocational training at the participant level in Greece. Still, my effort was not without limitations and in this subsection I explain the most important ones. First, I could not examine the impact of educational level and training on earnings, because this kind of information is not covered in the questionnaire schedule of the Greek LFS. Also, due to data limitations, I could not explore the impact that the duration of courses, thematic fields, number of participants or duration of unemployment period of the trainees had on unemployment. Another limitation of the research is that the available data are cross-sectional rather than longitudinal and therefore I could not study any population changes across time. However, I have seen that my econometric results on training agree with extant research findings regarding the other two levels of analysis, namely at meso and macro levels. The lack of proper aggregate statistics on the trainees or reliable financial data for the vocational training courses is another limitation of this work.

At the meso-level, the lack of systematic evaluations of institutions like the OAED, the process of training, etc. meant that the literature on which I based my secondary analysis was limited. With more time and resources I could have perhaps conducted interviews with key officials and training providers to explore deeper my findings from the secondary analysis. This could be a project for future research. At the macro-level, typologies of

regimes can be rather static, so we need more studies to see how regimes change over time, especially with respect to Southern Europe where the experience of Europeanization was different (see Zartaloudis, 2014). In this thesis, the key focus has been on the nature of vocational training as explaining why mismatch was present in Greece. However, mismatch and high unemployment also can be found in Northern European states, where training has resulted in up-skilling and hence, other factors than training regimes need to be considered as the drivers for mismatch happening. Clearly, further research, particularly of a comparative international nature could uncover these other factors and the nature of interplay as well as with vocational training regimes.

Three other paths of future research emerge from my study. First, I would like to update the econometric analysis using more recent LFS micro-data, since following the current unprecedented economic crisis in Greece, there have been substantial changes in the labour market conditions and labour market regulations creating an even more flexible labour market than the one before the crisis. Second, given the non-effects of training in Greece, addressing such questions as “why did the training continue until this day?” and “why did the EU continue to finance training activities without changing its model?” can be matters for future research and could be addressed through mixed methods, including the use of later LFS data and interviews with key policy actors.

Finally, for future research, I aspire to integrate the 3-level analytical framework developed in this thesis into a comparative research design to explore how cross-national variations in the effects of ALMPs and vocational training programmes on individual participants (micro) vary in relation to country-specific vocational training systems (meso) and their corresponding type of political economies and labour markets (macro). Thus, if applied in a comparative design, this framework can help us understand better the differences that institutional designs make and how effective they are in relation to the demands of the economy. Against this background, my approach in this thesis - and its potential for future research applications - contributes to the effort for better analytical strategies that widen our understanding of the impact of vocational training programmes, beyond the characteristics of the individual trainee, to include important institutional and macro-economic factors to explain policy success or failure, and draw lessons for policy more generally.

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APPENDIX

Table 4.1

Estimated impacts of European job training programmes on employment (cross-sectional data)

Country/study author(s)	Type of program	Target group	Observation period	Outcome(s) studied	Estimation method/Identification strategy	Results	
Denmark							
Jensen <i>et al.</i> (1993)/	AMU:CT	Adults	1976/1988	Unemployment rate	Panel		0
Westergaard-Nielsen (1993)		Poor recent job history					(-)
						Males	0.01
						Skilled males	0.01
						Unskilled males	0.01
						Females	0.00
Finland							
Nätti <i>et al.</i> (2000)	Labour market training	Registered unemployed	1990-1995	Employment rates	Regression (cross-section)	Unemployed	+
France							
Thierry and Sollogoub (1995)	OJT	Youth		Employment hazard	MLE		(-)

Bonnal <i>et al.</i> (1997)	Labour market training	Youth (Males < 26)	1986-1988	Unemployment hazard	MLE	Without diploma:	
						CT	+
						WE	0
						OJT	+
						With certificate:	
						CT	+
						WE	(-)
						OJT	+
			1986-1988	Employment hazard	MLE	Without diploma:	
						CT	(-)
						WE	0
						OJT	(-)
						With certificate:	
						CT	(-)
						WE	+
						OJT	(-)
Germany							
Kraus <i>et al.</i> (1997)	CT	AFG	1992-1994	Non-employment hazard to stable employment	MLE	CT males/females	+
						OJT males	0
						OJT females	+
Lechner (1996, 1997)	AFG:CT	Unemployed	1991-1993	Unemployment rate	Matching		0.01
Greece							

Livanos (2007)	Labour market training	Long-term unemployed	2000-2004	Unemployment probability	Logit	Non-significant effects on employment probability	0
Livanos (2009a)	Labour market training	Unemployed	2004	Unemployment probability	Logit	Non-significant effects on employment probability	0
Rodokanakis (2009)	Labour market training	Unemployed	1988-1992	Employment probability	Logit	Non-significant effects on employment probability	0
Rodokanakis (2010a)	Labour market training	Unemployed	1988-1992	Employment probability	Logit	Non-significant effects on employment probability	0
Rodokanakis (2010b)	Labour market training	Unemployed	1988-1992	Employment probability	Logit	Non-significant effects on employment probability	0
Rodokanakis (2011)	Labour market training	Unemployed	1988-2006	Employment probability	Logit	Non-significant effects on employment probability	0
Rodokanakis and Tryfonidis (2009)	Labour market training	Unemployed	1988-1992	Employment probability	Logit	Non-significant effects on employment probability	0

Rodokanakis and Vlachos (2012)	Labour market training	Unemployed	1994-2006	Employment probability	Logit	Participants in apprenticeship and CVT less likely to be unemployed than the non-trainees in one NUTS-2 region	+
Rodokanakis and Vlachos (2013a)	Labour market training	Unemployed	1994-2006	Employment probability	Logit	Non-significant effects on employment probability	0 (-)
Rodokanakis and Vlachos (2013b)	Labour market training	Unemployed	1988-1992	Employment probability	Logit	Non-significant effects on employment probability	0 (-)
Ireland							
O'Connell and McGinnity (1997)	Labour market training	Youth < 23	1992	Employment rate	Probit	CT	0.16
						OJT	0.21
						WE	0.00
Norway							
Torp <i>et al.</i> (1993)	CT	Adults	1991	Employment rate	Experiment	All treatments	0.03
					Probit	Training completers only	(-)
					Selection		(-)
Sweden							

Bjorklund (1993b, 1994)	AMS:CT	16-64 years/ unemployed	1976-1980	Employment rate	OLS		0.05
					Panel		0.08
Harkman <i>et al.</i> (1996)	AMS:CT	Adults	1993	Employment rate	Match/probit	All	-0.01
					Match/selection		0.09
The Netherlands							
Ridder (1986)	E&T Programmes	Adults	1979-1981	Employment hazard	MLE	>35 years	0
						<35 years, WE	(-)
						<35 years, OJT/CT	(-)
	E&T Programmes	Adults	1979-1981	Unemployment hazard	MLE	>35 years	(-)
						<35 years, WE	(-)
						<35 years, OJT/CT	(-)
de Koning <i>et al.</i> (1991)	CVV:CT	Adults		Unemployment hazard	Matching/ MLE	Blue collar trades	+
						Clerical courses	0
United Kingdom							
Main and Raffe (1983)	YOP	Youth	1978	Employment rate	Probit	YOP-Scotland	
						Males	0.06
						Females	0.14
Main (1985)	YOP	Youth	1980	Employment rate	Probit	YOP-Scotland	
						Males:	

						All	0.04
						Disadvantaged	0.03
						Females:	
						All	0.08
						Disadvantaged	0.07
Whitfield and Bourlakis (1991)	Training	Youth		Employment rate	Probit	YTS-I	0.04
Main and Shelly (1990)	Training	Youth		Employment rate	Probit	YTS-I-Scotland: All	0.15
						Disadvantaged	0.11
						Advantaged	0.20
						Disadvantaged	0.32
Main (1991)	Training	Youth		Employment rate	Probit	YTS-I-Scotland	
						Advantaged	0.14
						Disadvantaged	0.19
O'Higgins (1994)	Training	Youth		Employment rate	Probit	YTS-I: All	0.08
						Disadvantaged	0.04
	Training	Youth			Selection	YTS-I: All	0.21
						Disadvantaged	0.09
						Females	0.28
Dolton <i>et al.</i> (1992)	Training	Youth		Employment rate	Selection	YTS-II: no prior OJT	(-)
						Prior/current OJT	+
Dolton <i>et al.</i> (1994)	Training	Youth		Unemployment hazard	MLE	YTS-II	

						To all jobs: Males	(-)
						Females	(-)
						To all jobs net of time in YTS: Males	+
						Females	+
						To "stable" jobs: Males	0
						Females	+
White and Lakey (1992)	Restart		1989	Employment rate	Experiment		0.04
Payne <i>et al.</i> (1996)	ET	Adults	1991-1992	Employment rate	Matching		0.22
	EA	Adults	1991-1992	Employment rate	Matching		0.04
Dolton and O'Neill (1996a,b)	Restart		1989	Unemployment hazard	MLE	To all jobs	+
						To stable jobs	0
						To training schemes	+

Sources: Heckman *et al.*, 1999; Livanos, 2007 & 2009a; Rodokanakis, 2009, 2010a, 2010b & 2011; Rodokanakis and Tryfonidis, 2009; Rodokanakis and Vlachos, 2012, 2013a & 2013b.

- The data of the Greek LFS are cross-sectional.

Notes: Description of employment and training programmes: AMS: Continuing training (CT) available to those out of work in Sweden at training centres. Courses in the classroom are normally for under 17 weeks. AMU: those taking part normally receive CT between two and four weeks of full-time training at government training centres. Courses designed for the employed and also the unemployed. CVV: Vocational Training Centres make vocational CT in blue collar and clerical jobs available to adults taking part. EA: UK Employment Action programme gives those taking part

subsidised work in non-profit or public sector jobs. East German AFG: CT courses subsidised under the Work Support Act (Arbeitsförderungsgesetz). ES (Employment Service): services that may involve job search assistance (JSA), career advice, mobility grants, etc. ET: UK Employment Training programme making CT and some on-the-job training (OJT) options available to those taking part. E&T: Employment and Training Programmes. MLE: Maximum Likelihood Estimation. OLS: Ordinary Least Squares. Restart: From April 1987 until now, after 6, 12 and 24 months of unemployment, all the unemployed receive counseling from the Employment Service. This service also offers advice after evaluating the behaviour of the claimant in terms of job seeking. In the Restart experiment, attendance at an interview was not demanded from a random sample of unemployed until they had been unemployed for 12 months. Attending an interview after 6 months was necessary for the “treatments”. YOP: Youth Opportunities Programme 1978-1983. YTP: Youth Training Programmes in France. YTS-I: Youth Training Scheme 1983-1986 in England and Wales, if not shown otherwise. YTS-II: Youth Training Scheme 1986-1989 in England and Wales, if not shown otherwise. WEP/Teamwork: WEP refers to work experience programme that arranges temporary subsidised employment with private employer; Teamwork arranges similar in a volunteer or community organisation (Heckman *et al.*, 1999, pp. 2075-6).

APPENDIX - Table 4.2 Other studies of unemployed adults in Europe pertaining to the impact of training on employment

Country/study author(s)	Type of program	Target group	Design	Outcome(s) studied	Results	
Austria						
Faschingbauer <i>et al.</i> (1990)	Labour market training	Adults	Comparison with all unemployed persons	Employment probability	No impact on job chances. Uncertain result; selection bias not controlled.	0
Zweimuller and Winter-Ebmer (1996)	Labour market training	Persons leaving unemployment or trainee registers	Quasi-experimental		Reduced risk of repeated unemployment	+
Belgium						
Bollens and Hooze (1996)	Training	Unemployed	Quasi-experimental	Employment probability	Job chances of the unemployed improved	+
Denmark						
Rosholm (1994)*	Job Offer System	Unemployed	Comparison with all unemployed persons	Escaping from unemployment	Negative or insignificant impact on escaping from unemployment for most groups	(-) 0

Ireland						
Breen (1991)	Two training and two work experience programmes	Unemployed	Quasi-experimental	Employment probability	Both training and work experience enhanced job chances	+
Norway						
Hernaes <i>et al.</i> (1991)	Labour market training	Adults	Quasi-experimental	Employment probability	Job chances improved. Selection bias only partly controlled.	+
Raaum and Torp (1992)	Labour market training	Adults	Quasi-experimental	Employment probability	Job chances improved. Selection bias only partly controlled.	+
Spain						
Saez and Toledo (1995)	Training	Unemployed	Quasi-experimental	Employment probability	Job chances of the unemployed improved	+
The Netherlands						
de Koning (1993)	Vocational Training (CV)	Adults	Quasi-experimental	Job finding or employment probability	No significant impact on job finding or employment	0
United Kingdom						
Payne (1990)	Skills Training: Off-the-job-	Adults	Quasi-experimental	Employment probability	Job chances improved	+

	courses					
Hofbauer and Dadzio (1987)	Training	Unemployed	Quasi-experimental	Job finding	Small impact on job finding for the unemployed	
Bellman and Lehmann (1990)	Further training and retraining 1987-1988	Unemployed	Econometric study of labour market flows	Employment probability	No impact on flows out of unemployment	0

Sources: OECD, 1993a; Nicaise and Bollens, 1998.

* as found in Fay (1996)

APPENDIX - Table 4.3 Micro-economic evaluations of European training programmes

European evaluation studies on training (employment probability – longitudinal data)

Country/study author(s)	Type of program	Target group	Design	Observation period	Outcome(s) studied	Estimation method/Identification strategy	Results
Austria							
Zweimüller and Winter-Ebmer (1996)	Training programs	Unemployed adults	Non-experimental	1986-1987	Employment stability: occurrence of repeated unemployment spells 12 months after individual leaves unemployment register	Bivariate probit model for repeated unemployment and selection into training. Earnings replacement ratio of UI benefits used as instrument	+ Positive effects for men. Programs improve employment stability.
Winter-Ebmer (2006)	Training programs with job search counseling	Workers laid off in steel industry	Non-experimental	1987	Employment stability	IV	+ Positive effects for men overall. Improved employment prospects. 0 no effect for women.
Weber and Hofer (2003)	Training programs	Unemployed adults	Non-experimental	1999, 2000	Unemployment durations	Multivariate hazard model, timing-of-events method	Training programs increase unemployment durations: – for men, –overall, 0 for women.
Belgium							
Cockx (2003)	Vocational training	Unemployed	Non-experimental	1989-1993	Transition rate from unemployment	Control function estimator	+ Positive effects on the transition rate. Simulated decrease of unemployment duration 4 to 6 months

Denmark							
Graversen (2004)	Private sector employment programs, public sector employment program, training programs, other programs	Welfare benefit recipients (analysis only on males, above 25 years of age)	Non- experimental	1994-1998	Unemployment duration	Timing of events and intended timing by municipalities	+ Modest threat effects, + private sector employment programs reduce unemployment duration, – all other program types increase unemployment duration
Hogelund and Holm (2005)	Vocational education	Disabled: long-term “sick listed” workers	Non- experimental	1995-1999	Re-employment rates	Competing risk duration model	0 No significant effect of educational measures on the return to work of the sick- listed
Rosholm and Svarer (2004)	Private sector employment programs, public sector employment program, training programs, other programs	UI benefit recipients (analysis only on males, 25-59 years of age)	Non- experimental	1998-2002	Unemployment duration	Timing-of-events and functional form specification of hazard rate out of unemployment	+ Strong threat effect, + private sector employment programs reduce unemployment duration – all other program types increase unemployment duration
Bolvig <i>et al.</i> (2003)	Employment programs, training programs, other programs	Welfare benefit recipients	Non- experimental	1997-1999	Unemployment duration, subsequent employment duration	Timing of events	+Employment programs have positive effects, – training and other programs have negative effects
Rosholm and Skipper (2009)	Classroom training	Unemployed	Non- experimental	1994	Employment probability	Matching estimators	– Classroom training significantly increases individual unemployment rates
Estonia							
Leetmaa and Võrk (2004)	Training	Unemployed adults	Non- experimental	2000-2002	Employment rates	Propensity score matching	+ Training has positive effects

Table 4.3 Micro-economic evaluations of European training programmes (ctd)

Country/study author(s)	Type of program	Target group	Design	Observation period	Outcome(s) studied	Estimation method/Identification strategy	Results
Finland							
Malmberg-Heimonen and Vuori (2005)	Financial incentives and job-search training	Unemployed	Experimental	1998-2000	Re-employment	-	0 No significant overall impact + Positive for individuals with financial incentives – No positive effects for more disadvantaged
Hämäläinen and Ollikainen (2004)	Labour market training (LMT), youth practical training (YPT)	Young unemployed	Non- experimental	1988-2000	Six different outcomes	Prosperity score matching	+ Increased employment for LMT – Slightly negative impact on all outcomes for YPT
Hämäläinen (2002)	Labour market training	Unemployed	Non- experimental	1989-1994	Employment probability	Bivariate probit model	+ Positive impact, which is negatively related to overall unemployment
France							
Brodaty <i>et al.</i> (2001)	Youth employment programs: 'work-place' training prog. (private s.), 'workfare' programmes (public s.)	The most disadvantaged and unskilled young workers	Non- experimental	1986-1988	Employment status	Propensity score matching (multi-valued treatment)	+ On-the-job training in private sector (due to higher amount of vocational and specific training)
Cavaco <i>et al.</i> (2005)	Retraining for displaced workers	Unemployed	Non- experimental	1995-1998	Unemployment duration and employment probability	Dependent competing risks duration model	+ Positive effect, increased employment probability by 8 %. Higher benefits for high skilled and high educated workers
Brodaty <i>et al.</i> (2002)	Workplace training programs (private sector), workfare programs (public sector) and other programs (e.g. training)	Young unemployed	Non- experimental	1986-1988, 1995-1998	Transition to employment	Propensity score matching	+ Positive effects for all programs in the first cohort, higher effects for workplace training programs (for short-term unemployed), other programs more effective for long-term unemployed – Negative effects for all programs for the cohort 95-98

Table 4.3 Micro-economic evaluations of European training programmes (ctd)

Country/study author(s)	Type of program	Target group	Design	Observation period	Outcome(s) studied	Estimation method/Identification strategy	Results
Germany							
Bergemann <i>et al.</i> (2000)	Training	Long-term unemployed and other hard to place persons	Non-experimental	1990-1998	Employment rates	Propensity score matching combined with DiD in a repeated participation framework	–/0 Significant negative effect on employment or no significant effect, except for women (+ sign. positive)
Biewen <i>et al.</i> (2007)	Sponsored training programs	Unemployed	Non-experimental	2000-2002	Employment probability	Propensity score matching	+ West Germany: significantly positive effects for certain population sub-groups. 0 East Germany: little evidence for positive effects. –/0 Employment effects decline for older workers and low-skilled workers.
Fitzenberger and Speckesser (2005)	Training	Unemployment and those threatened by unemployment	Non-experimental	1993-1997	Employment rates observed up to three years after participation started	Propensity score matching (stratification)	+ West Germany: lock-in effect in the short run and sign. positive effects on employment rates in the long run. 0 East Germany: lock-in effect in the short run and less significantly positive effect

Table 4.3 Micro-economic evaluations of European training programmes (ctd)

Country/study author(s)	Type of program	Target group	Design	Observation period	Outcome(s) studied	Estimation method/Identification strategy	Results
Germany (ctd)							
Hujer <i>et al.</i> (2004)	Training: i) short-term (1-3 months) ii) medium term (6 months) iii) long-term (12 months)	Unemployed and those threatened by unemployment	Non- experimental	1999-2002	Duration of unemployment and locking-in effect	Multivariate duration model (simultaneous model of duration until treatment and duration until transition into employment)	0 No significant evidence, neither on locking-in nor on effect on unemployment duration. 0 Significant locking-in, no significant effect on U duration. – Significant locking-in, significantly rises U duration
Hujer and Wellner (2000)	Training	Unemployed and those threatened by unemployment	Non- experimental	1985-1992 West, 1990-1992 East	Duration of unemployment after treatment (hazard rate of transition from U to E)	Prosperity score matching (West: oversampling)	+ West: treatment significantly reduces unemployment duration; 0 East: no significant effect; Short-term programs perform better than long-term programs
Klose and Bender (2000)	Training	Unemployed and those threatened by unemployment	Non- experimental	1986-1990	i) Unemployment duration ii) Employment stability both observed up to 3 years after completing the measure	Hierarchical covariate matching	0 No significant effect of training on unemployment duration; – training significantly reduces job stability
Lechner (2000)	Training and retraining	Unemployed and those threatened by unemployment	Non- experimental	1990-1994	Unemployment rate observed up to 3 years after completing the training measure	Partial propensity score matching (with varying caliper)	–/0 In the short run, training significantly increases unemployment rates; in the long run (3 years), no significant effects

Country/study author(s)	Type of program	Target group	Design	Observation period	Outcome(s) studied	Estimation method/Identification strategy	Results
Germany (ctd)							
Lechner <i>et al.</i> (2005)	Training in West Germany	Unemployed and those threatened by unemployment	Non-experimental	1993-2002	i) Employment ii) Unemployment	Propensity score matching (Nearest neighbour matching with weighted over sampling) in a multiple treatment framework	i) + Short training: significantly positive effect on employment in short and long run. +/0 Long training: significantly positive effect on employment in short run, no significant effect in the long run. + Retraining: sign. negative effect in the short run, sign. positive effect in the long run. 0 Practice firm: no significant effects. ii) No significant positive effect on unemployment for all programs
Lechner <i>et al.</i> (2007)	Training in East Germany	Unemployed and those threatened by unemployment	Non-experimental	1993-2002	i) Employment ii) Unemployment	Propensity score matching (Nearest neighbour matching with weighted over sampling) in a multiple treatment framework	i) + Short training: sign. negative effect in the very short run and positive effect in the long run on employment. 0 Long training: sign. negative effect in the short run and insignificant effect in the long run on employment. + Retraining: sign. negative effect in the short run and sign. positive effect in the long run on employment. ii) in the short run vice versa to i) and in the long run zero

Table 4.3 Micro-economic evaluations of European training programmes (ctd)

Country/study author(s)	Type of program	Target group	Design	Observation period	Outcome(s) studied	Estimation method/Identification strategy	Results
Ireland							
McGuinness <i>et al.</i> (2014)	Training (5 types)	Unemployed	Non- experimental	2006-2008	Employment probability	PSM	+ Positive effect on employment probability of high-level specific skills training. Positive effect on employment probability of medium-level specific skills training is sensitive to the inclusion of voluntary walk-ins, which might overstate the impact of training.
Norway							
Røed and Raaum (2003)	1) Training 2) Work practice schemes	Unemployed	Non- experimental	1989-2002	Unemployment duration and transition to employment	Dependent risk hazard rate model	0 Average net effect is around zero; + Substantial positive effects for individuals with poor prospects. Benefits do not exceed the costs except for male immigrants

Table 4.3 Micro-economic evaluations of European training programmes (ctd)

Country/study author(s)	Type of program	Target group	Design	Observation period	Outcome(s) studied	Estimation method/Identification strategy	Results
Norway (ctd)							
Zhang (2003)	Training	Unemployed	Non- experimental	1990-2000	Transition to employment	Mixed proportional hazard rate (MPH) model	+ Positive effects for training
Aakvik (2003), Aakvik and Dahl (2006)	Educational programs	Disabled	Non- experimental	1995-1998	Transition to employment	Selection models	0 No significant effect
Hardoy (2001)	Employment, vocational training programs and combination programs	Young unemployed	Non- experimental	1989-1993	Employment probability and educational level	Maximum likelihood method	0 Overall, no positive effects on employment or education; – Negative effects for (classroom) training; – Negative effects for vocational programs; Increased employment probability for employment and combination programs for women. No effects for men of any program
Poland							
Kluve <i>et al.</i> (2005)	Training	Unemployed adults	Non- experimental	1992-1996	Employment rates	Exact covariate matching	+ Training has positive effects
Portugal							
Centeno <i>et al.</i> (2005)	Small basic skills courses	(Young) unemployed	Non- experimental	1997-2001	Unemployment duration	Propensity score matching and difference-in-difference estimators	0 Small, insignificant impact on unemployment duration

Table 4.3 Micro-economic evaluations of European training programmes (ctd)

Country/study author(s)	Type of program	Target group	Design	Observation period	Outcome(s) studied	Estimation method/Identification strategy	Results
Slovakia							
van Ours (2001)	Training, SPJ (Socially purposeful jobs), PUJ (Publicly useful jobs)	Unemployed	Non- experimental	1993-1998	Job finding rate, job separation rate	Duration model	+ Short-term subs. jobs, – long-term subs. jobs, + training
Spain							
Arellano (2005)	Training	Unemployed	Non- experimental	2000-2001		Mixed proportional hazard rate (MPH) model	+ Positive effects, higher for women than for men
Cueto and Mato (2009)	Labour market training	Unemployed	Non- experimental	1999	Employment probability	Propensity score matching	Training increases employment probability in about 8-9%
Sweden							
Larsson (2000)	2 programs: Youth Practice and labour market training	Young unemployed	Non- experimental	1991-1997	Re-employment probability, probability of regular education	Propensity score matching (multi-valued treatment), OLS, Probit	Both programs: short-run 0 to –, long-run 0 to slightly +; Youth Practice better than labour market training
Sianesi (2001)	Various ALMP	Unemployed	Non- experimental	1991-1999	Various measures	Propensity score	At best 0 effects (if

	measures condensed into one 'treatment'				of labour market status, in particular employment probability	matching	cycling excluded), and – otherwise
Albrecht <i>et al.</i> (2005)	Adult Education Initiative	25-55 old unemployed adults	Non- experimental	1990-2000	Employment probability	Fixed effects, conditional difference-in-differences, conditional probit	+ Positive employment effects for young men
Andrén and Andrén (2002)	Labour market training	Unemployed	Non-experimental	1993-1997	Employment probability	Latent index sample selection model	+ Small positive effects for Swedish-born; –/+ Negative effects for Foreign-born in the first year, positive afterwards
Andrén and Andrén (2006)	Vocational training	Unemployed	Non-experimental	1993-1994	Employment probability	Matching estimators	+/- Positive and negative employment effects
Fredriksson and Johansson (2003)	Training	Unemployed	Non- experimental	1993-1997	Outflow to employment	Propensity score matching	– Reduced outflow to employment by around 40%

Table 4.3 Micro-economic evaluations of European training programmes (ctd)

Country/study author(s)	Type of program	Target group	Design	Observation period	Outcome(s) studied	Estimation method/Identification strategy	Results
Sweden (ctd)							
Larsson (2002)	1) Youth practice, 2) Labour market training	20-24 years old youth	Non-experimental	1985-1995	Employment probability	OLS, Probit, Matching	– Negative effects on employment probability
Richardson and van den Berg (2001)	Vocational employment-training program	Unemployed	Non-experimental	1993-2000	Transition rate from unemployment to employment	Bivariate duration models	0/+ Net effect on unemployment duration about zero. Significantly higher transition rate from unemployment to employment after participation
Stenberg (2003)	1) Adult Education Initiative 2) Vocational part of Labour Market Training	Unemployed	Non-experimental	1996-2000	Mobility between branches	OLS, IV, Logit	– Negative effect on mobility compared to LMT vocational part
Stenberg (2005)	1) Adult Education Initiative 2) Labour market training	Unemployed	Non-experimental	1997-2002	Incidence of Unemployment, unemployment duration	Bivariate probit model, Powell IV	0 Decreased incidence of unemployment, but increased unemployment duration compared to LMT

Switzerland							
Gerfin and Lechner (2000)	Training (5 types). Employment Programs (private and public).	Unemployed UI recipients	Non-experimental	1997-1998	Employment	Propensity score matching (multi-valued treatment)	– Employment programs, training mixed
Steiger (2005)	9 different programs incl. training, employment programs and interim jobs	Unemployed	Non-experimental	1996-1999	8 different outcomes	Propensity score matching	Result sensitive to the definition of non-participation. – Negative results for most programs compared to non-participation. + Positive results for most programs compared to a delayed participation
UK							
Bell <i>et al.</i> (1999)	Training ('New Deal')	Young unemployed	Non-experimental	1997-1998	Productivity = wages	Trend-adjusted difference-in-differences	Productivity effects relatively modest (compared to size of subsidy)
Meadows and Metcalf (2008)	Adult training	Low qualified labour force (low literacy and numeracy skills)	Non-experimental	2002-2004	Employment probability	Difference-in-differences	+/-0 Employability improvements, but no employment effects

Notes: S = schooling, UI = unemployment insurance.

Sources: Kluve and Schmidt, 2002; Kluve, 2006; Kluve, 2010; author's additions and modifications.

APPENDIX - TABLE 5.1 ANALYSIS OF THE VARIABLES USED IN THE MODEL

The reference or base categories are underlined

<p>Dependent variable</p> <p>Employment status (Unemployed, <u>Employed</u>)</p>
<p>Explanatory variables</p> <ol style="list-style-type: none"> 1) Gender (Female, Male) 2) Marital status (Married or divorced or widows <i>against</i> Non-married) 3) Age groups <ul style="list-style-type: none"> <u>15-24 years old</u> 25-34 years old 35-44 years old 45-64 years old 4) Level of education <ul style="list-style-type: none"> <u>University graduates</u> MSc or PhD holders Technological Educational Institutions (TEI) graduates Lyceum graduates (12 years of schooling) or not finished University High-school graduates (9 years-compulsory education) Primary school graduates or not finished primary school or never in school 5) Geographical area at NUTS-2 level and above <ul style="list-style-type: none"> Attica Central Macedonia <u>Rest of Greece</u> 6) Residence location <ul style="list-style-type: none"> Athens Area Thessaloniki Area Rest of urban areas Semi-urban areas

Rural areas

7) Participation in the past in training course(s)

Non-participation in the past in training course(s)

8) Citizenship

9) Years

Year 1992

Year 1994

Year 2000

APPENDIX - TABLE 5.8 DESCRIPTIVE STATISTICS OF THE LOGIT MODEL

Variables/Area/Year	Frequencies	Percent
Employed	138,405	90,4%
Unemployed	14,628	9,6%
Males	94,943	62,0%
Females	58,090	38,0%
Non-married	10,339	6,8%
Married or divorced or widows	142,694	93,2%
Aged 15-24	19,395	12,7%
Aged 25-34	39,975	26,1%
Aged 35-44	39,708	25,9%
Aged 45-64	53,955	35,3%
Training	4,208	2,7%
Non-participation in training	148,825	97,3%
Greek Citizenship	149,881	97,9%
Foreigner Citizenship	3,152	2,1%
Athens area	45,994	30,1%
Thessaloniki area	12,662	8,3%
Rest of urban areas	36,433	23,8%
Semi-urban areas	18,989	12,4%
Rural areas	38,955	25,5%
MSc or PhD holders	554	0,4%
University graduates	15,048	9,8%
TEI graduates	11,358	7,4%
Twelve years of schooling	40,762	27,8%
Nine years compulsory education	14,532	9,9%
Primary school graduates and below	64,561	44,0%
Central Macedonia	24,398	15,9%
Attica	53,773	35,1%
Rest of Greece	74,862	48,9%
Year 1992	53,297	34,8%
Year 1994	65,858	43,0%
Year 2000	33,878	22,1%

Table 5.9 Numbers of records eligible for analysis in the LFS samples

Year	Geographical level	No. of records
1992	Greece	53,297
	Rest of Greece	23,706
	Central Macedonia	9,290
	Attica	20,301
1994	Greece	65,858
	Rest of Greece	33,916
	Central Macedonia	9,543
	Attica	22,399
2000	Greece	33,878
	Rest of Greece	17,240
	Central Macedonia	5,565
	Attica	11,073

Table 5.10 Numbers of training records eligible for analysis in the LFS samples

<u>Year</u>	<u>Geographical level</u>	<u>No. of training records</u> (training completed)
1992	Greece	Apprenticeship: 257 intra-firm training: 62 CVT: 180 popular training: 21
	TOTAL GREECE 1992	520 RECORDS
	Central Macedonia	Apprenticeship: 61 intra-firm training: 22 CVT: 50 popular training: 10
	Total Cen. Maced. 1992	143 records
	Attica	Apprenticeship: 85 intra-firm training: 12 CVT: 47 popular training: 3
	Total Attica 1992	147 records
	Rest of Greece	Apprenticeship: 111 intra-firm training: 28 CVT: 83 popular training: 8
	Total rest of Greece 1992	230 records

1994	Greece	Apprenticeship: 242 intra-firm training: 75 CVT: 140 popular training: 13
	TOTAL GREECE 1994	470 RECORDS
	Central Macedonia	Apprenticeship: 39 intra-firm training: 8 CVT: 26 popular training: 3
	Total Cen. Maced. 1994	76 records
	Attica	Apprenticeship: 76 intra-firm training: 12 CVT: 22 popular training: 8
	Total Attica 1994	118 records
	Rest of Greece	Apprenticeship: 127 intra-firm training: 55 CVT: 92 popular training: 2
	Total rest of Greece 1994	276 records
2000	Greece	Apprenticeship: 2,491 intra-firm training: 90 CVT: 573 popular training: 64
	TOTAL GREECE 2000	3,218 RECORDS
	Central Macedonia	Apprenticeship: 263 intra-firm training: 20 CVT: 67 popular training: 10
	Total Cen. Maced. 2000	360 records

Attica	Apprenticeship: 1,701 intra-firm training: 16 CVT: 194 popular training: 7
Total Attica 2000	1918 records
Rest of Greece	Apprenticeship: 527 intra-firm training: 54 CVT: 312 popular training: 47
Total rest of Greece 2000	940 records
TOTAL ALL THREE AREAS AND YEARS	4,208 RECORDS
